LG
Life's Good

OWNER'S MANUAL

LED TV*

* LG LED TV applies LCD screen with LED backlights.

Please read this manual carefully before operating your set and retain it for future reference.

LN54**
LP36**
LP63**
LP86**
LA62**

www.lg.com

ENGLISH

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WARNING

- If you ignore the warning message, you may be seriously injured or there is a possibility of accident or death.

CAUTION

- If you ignore the caution message, you may be slightly injured or the product may be damaged.

NOTE

- The note helps you understand and use the product safely. Please read the note carefully before using the product.

LICENSES

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7,295,673; 7,460,668; 7,515,710; 7,519,274

(Only LP860*)

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SAFETY INSTRUCTIONS

Please read these safety precautions carefully before using the product.

Viewing 3D Imaging (Only 3D models)

WARNING

Viewing Environment

- Viewing Time
  - When watching 3D contents, take 5 - 15 minute breaks every hour. Viewing 3D contents for a long period of time may cause headache, dizziness, fatigue or eye strain.

Those that have a photosensitive seizure or chronic illness

- Some users may experience a seizure or other abnormal symptoms when they are exposed to a flashing light or particular pattern from 3D contents.
- Do not watch 3D videos if you feel nausea, are pregnant and/ or have a chronic illness such as epilepsy, cardiac disorder, or blood pressure disease, etc.
- 3D Contents are not recommended to those who suffer from stereo blindness or stereo anomaly. Double images or discomfort in viewing may be experienced.
- If you have strabismus (cross-eyed), amblyopia (weak eyesight) or astigmatism, you may have trouble sensing depth and easily feel fatigue due to double images. It is advised to take frequent breaks than the average adult.
- If your eyesight varies between your right and left eye, revise your eyesight prior to watching 3D contents.

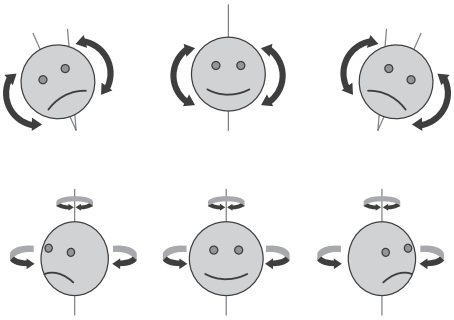
Symptoms which require discontinuation or refraining from watching 3D contents

- Do not watch 3D contents when you feel fatigue from lack of sleep, overwork or drinking.
- When these symptoms are experienced, stop using/watching 3D contents and get enough rest until the symptom subsides.
  - Consult your doctor when the symptoms persist. Symptoms may include headache, eyeball pain, dizziness, nausea, palpitation, blurriness, discomfort, double image, visual inconvenience or fatigue.

CAUTION

Viewing Environment

- Viewing Distance
  - Maintain a distance of at least twice the screen diagonal length when watching 3D contents. If you feel discomfort in viewing 3D contents, move further away from the TV.
- Viewing Position
  - Face the center of the screen at eye level with the head looking straight ahead. Otherwise, you may not be able to view 3D contents properly.



Viewing Age

- Infants/Children
  - Usage/ Viewing 3D contents for children under the age of 6 are prohibited.
  - Children under the age of 10 may overreact and become overly excited because their vision is in development (for example: trying to touch the screen or trying to jump into it. Special monitoring and extra attention is required for children watching 3D contents.
  - Children have greater binocular disparity of 3D presentations than adults because the distance between the eyes is shorter than that of adults. Therefore they will perceive more stereoscopic depth compared to adults for the same 3D image.
- Teenagers
  - Teenagers under the age of 19 may react with sensitivity due to stimulation from light in 3D contents. Advise them to refrain from watching 3D contens for a long time when they are tired.
- Elderly
  - The elderly may perceive less 3D effect compared to the young. Do not sit closer to the TV than the recommended distance.

Cautions when using the 3D glasses

- Make sure to use LG 3D glasses. Otherwise, you may not be able to view 3D videos properly.
- Do not use 3D glasses instead of your normal glasses, sunglasses or protective goggles.
- Using modified 3D glasses may cause eye strain or image distortion.
- Do not keep your 3D glasses in extremely high or low temperatures. It will cause deformation.
- The 3D glasses are fragile and are easily scratched. Always use a soft, clean piece of cloth when wiping the lenses. Do not scratch the lenses of the 3D glasses with sharp objects or clean/wipe them with chemicals.
- When watching 3D videos under fluorescent lights or with three wave length lamps, you may experience the screen blinking. When this occurs, turn the light off or turn it down.
- Other electronic or communication devices should be turned off or put away from the TV because it can cause interference and prevent the 3D function from working properly.
- When you watch TV lying down, 3D images may look darker or invisible.

NOTE

- Image shown may differ from your TV.
- Your TV's OSD (On Screen Display) may differ slightly from that shown in this manual.
- The available menus and options may differ from the input source or product model that you are using.
- New features may be added to this TV in the future.
- The TV can be placed in standby mode in order to reduce the power consumption. And the TV should be turned off if it will not be watched for some time, as this will reduce energy consumption.
- The energy consumed during use can be significantly reduced if the level of brightness of the picture is reduced, and this will reduce the overall running cost.

INSTALLATION PROCEDURE

1 Open the package and make sure all the accessories are included.
2 Attach the stand to the TV set.
3 Connect an external device to the TV set.

ASSEMBLING AND PREPARING

Unpacking

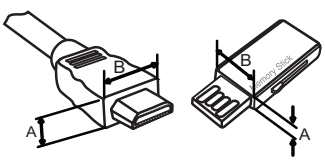
Check your product box for the following items. If there are any missing accessories, contact the local dealer where you purchased your product. The illustrations in this manual may differ from the actual product and item.

CAUTION

- Do not use any unapproved items to ensure the safety and product life span.
- Any damages or injuries by using unapproved items are not covered by the manufacturer's warranty.
- Some models have a thin film attached on to the screen and this must not be removed.

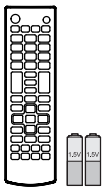
NOTE

- The items supplied with your product may vary depending on the model.
- Product specifications or contents of this manual may be changed without prior notice due to upgrade of product functions.
- For an optimal connection, HDMI cables and USB devices should have bezels less than 10 mm thick and 18 mm width. Use an extension cable that supports USB 2.0 if the USB cable or USB memory stick does not fit into your TV's USB port.

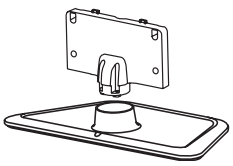


***A ≦ 10 mm**
***B ≦ 18 mm**

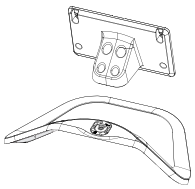
Owner's manual



Remote control, **batteries** (AAA)
(See p.28, 29, 30, 31)

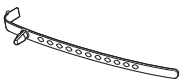


Stand Body / Stand Base
(Only LP36**, 32/37/39/42/47LN54**, LP63**)
(See p.12)



Stand Body / Stand Base
(Only LP860*, 55/60LN54**, LA62**)
(See p.12)

SCART Gender Cable
(Only LP869*)
(See p.25)

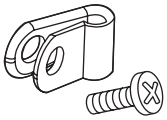


Cable holder
(Depending on model)
(See p.17)

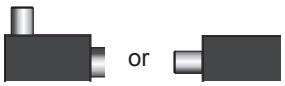
Desk-mount screw
M4 x 20
(1EA: Only LP36**, 32/37/39/42/47LN54**, LP63**)
(2EA : Only 42/47LP860*)
(See p.14)

Stand screws
M4 x 14
(7EA : Only LP36**, LP63**, 32/37/39/42/47LN54**)
(8EA : Only LP860*, 55/60LN54**, LA62**)
(See p.12)

Power cord
(Depending on model)

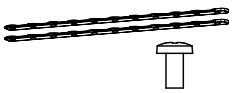


Protective bracket/bolt
(Only LN54**,LP36**, LP63**, LA62**)
(See p.17)



Isolator
(Depending on model)
(See p.8)

Dual Lock™
(Only LP63**)
(See p.18)



Desk-mount Cable/ Bracket Screw
M4 x 8
2EA
(Only 42/47LP860*)
(See p.14)

Power Cord Holder
Coaxial Cable Holder
(Depending on model)
(See p.17)

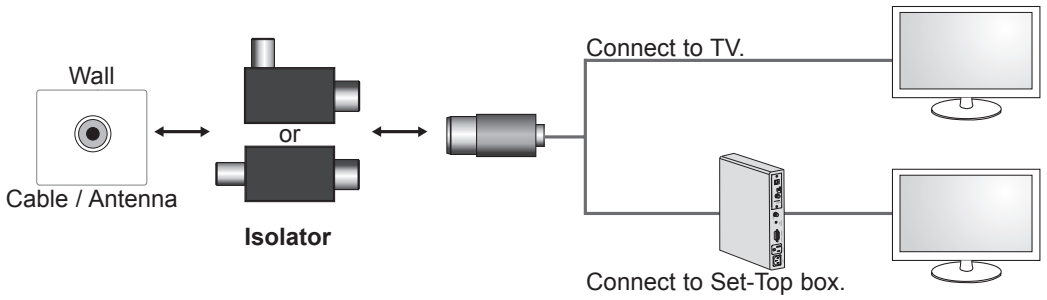
Wall mount inner spacers
4EA
(Only 37LP869*)
(See p.16)

EzSign Editor CD
(Only LN549E)

Cinema 3D Glasses
The number of 3D glasses may differ depending on the model or country.
(Depending on model)

NOTE

- Antenna Isolator Installation Guide
  - Use this to install TV in a place where there is a voltage difference between TV Set and GND of antenna signal.
    - » If there is a voltage difference between TV Set and GND of antenna signal, the antenna contact might be heated and excessive heat might cause an accident.
  - You can improve the safety when watching TV by efficiently removing power voltage from TV antenna. It is recommended to mount the isolator to the wall. If it cannot be mounted to the wall, mount it on the TV. Avoid disconnecting the antenna Isolator after installation.
  - Before starting, be sure that the TV antenna is connected.



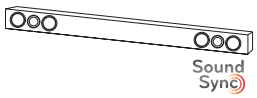
Connect one end of the isolator to cable/antenna jack and the other to TV set or set-top box.

“Equipment connected to the protective earthing of the building installation through the mains connection or through other equipment with a connection to protective earthing - and to a cable distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a cable distribution system has therefore to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11)”

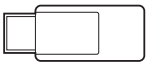
When applying the RF Isolator, a slight loss of signal sensitivity can occur.

Separate purchase

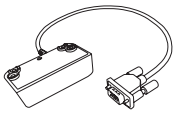
Separate purchase items can be changed or modified for quality improvement without any notification.
Contact your dealer to buy these items.
These devices only work with certain models.



LG Audio Device



Wireless Dongle
AN-WF100



LED Clock
LEC-001

Magic Remote
AN-MR300

Cinema 3D Glasses
AG-F2**, AG-F3**, AG-F4**

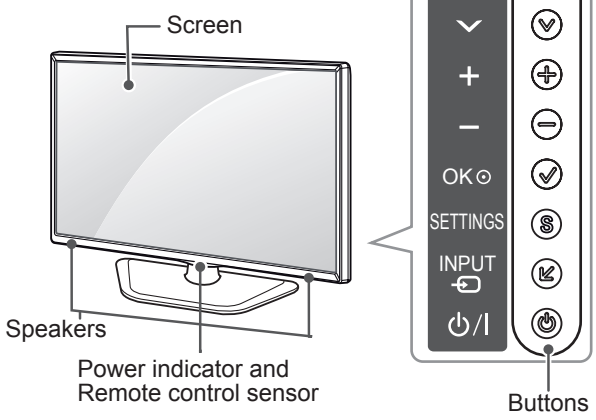
Compatibility	LN548C / LN549C / LP36**	LN549E	LP63**	LP860*	LP869*	LA62**
LG Audio Device	•	•	•	•	•	•
Wireless Dongle AN-WF100		•				
LED Clock LEC-001			•	•		
AN-MR300 Magic Remote				•	•	
Cinema 3D Glasses AG-F2**, AG-F3**, AG-F4**						•

The model name or design may be changed depending on the upgrade of product functions, manufacturer's circumstances or policies.

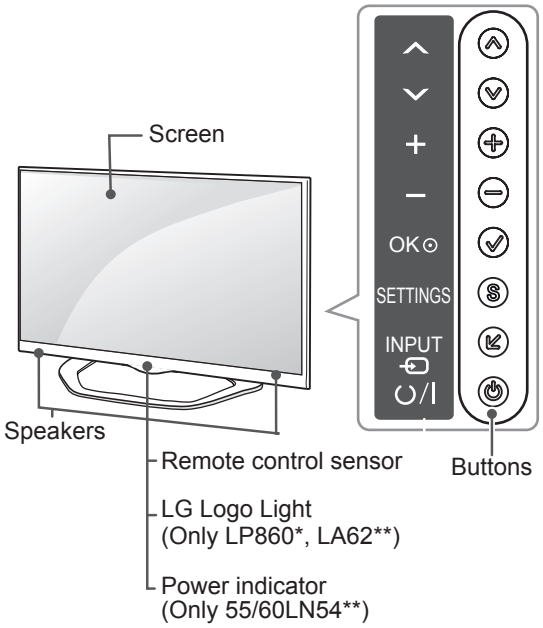
ENGLISH

Parts and buttons

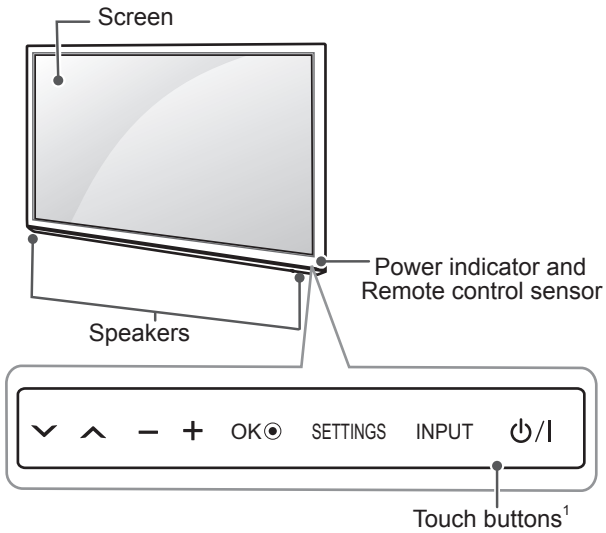
A type : LP36**, LP63**, 32/37/39/42/47LN54**



B type : LP860*, 55/60LN54**, LA62**



C type : 37LP869*



Button	Description
∧ ∨	Scrolls through the saved programmes.
+ −	Adjusts the volume level.
OK ◉	Selects the highlighted menu option or confirms an input.
SETTINGS	Accesses the main menu, or saves your input and exits the menus.
INPUT ⮆	Changes the input source.
⏻ / I	Turns the power on or off.

1 C type buttons are touch sensitive and can be operated through simple touch with your finger.

NOTE

- You can set the LG Logo Light or Power Indicator Light to on or off by selecting **OPTION** in the main menus.(Depending on model)

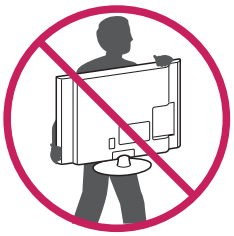
Lifting and moving the TV

When moving or lifting the TV, read the following to prevent the TV from being scratched or damaged and for safe transportation regardless of its type and size.

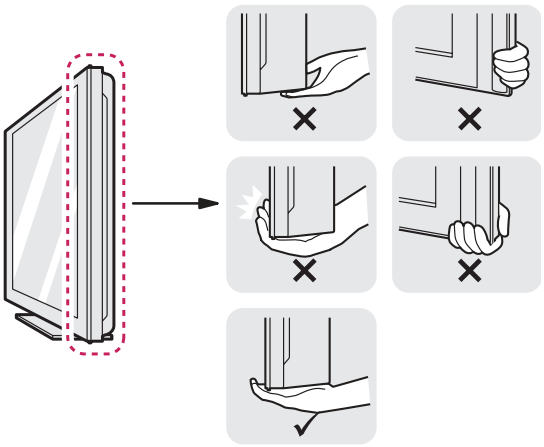
CAUTION

- Avoid touching the screen at all times, as this may result in damage to the screen.

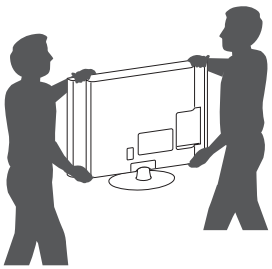
- It is recommended to move the TV in the box or packing material that the TV originally came in.
- Before moving or lifting the TV, disconnect the power cord and all cables.
- When holding the TV, the screen should face away from you to avoid damage.



- Hold the top and bottom of the TV frame firmly. Make sure not to hold the transparent part, speaker, or speaker grill area.



- When transporting a large TV, there should be at least 2 people.
- When transporting the TV by hand, hold the TV as shown in the following illustration.



- When transporting the TV, do not expose the TV to jolts or excessive vibration.
- When transporting the TV, keep the TV upright, never turn the TV on its side or tilt towards the left or right.
- Do not apply excessive pressure to cause flexing/bending of frame chassis as it may damage screen.

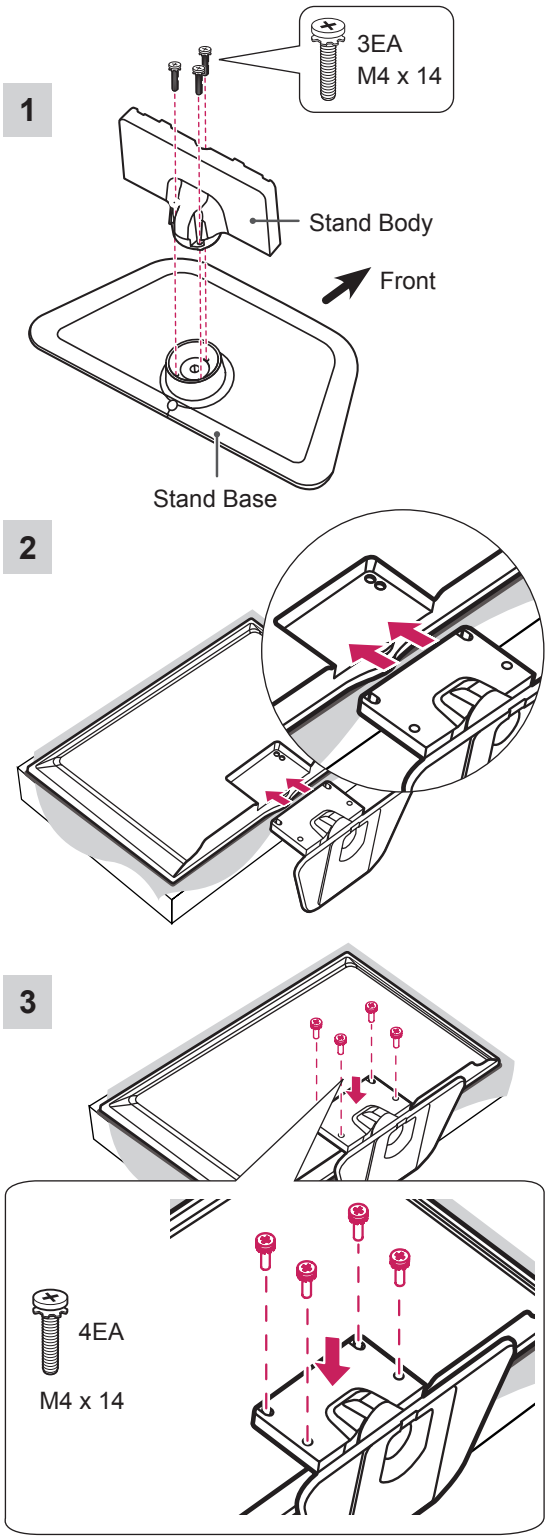
ENGLISH

Setting up the TV

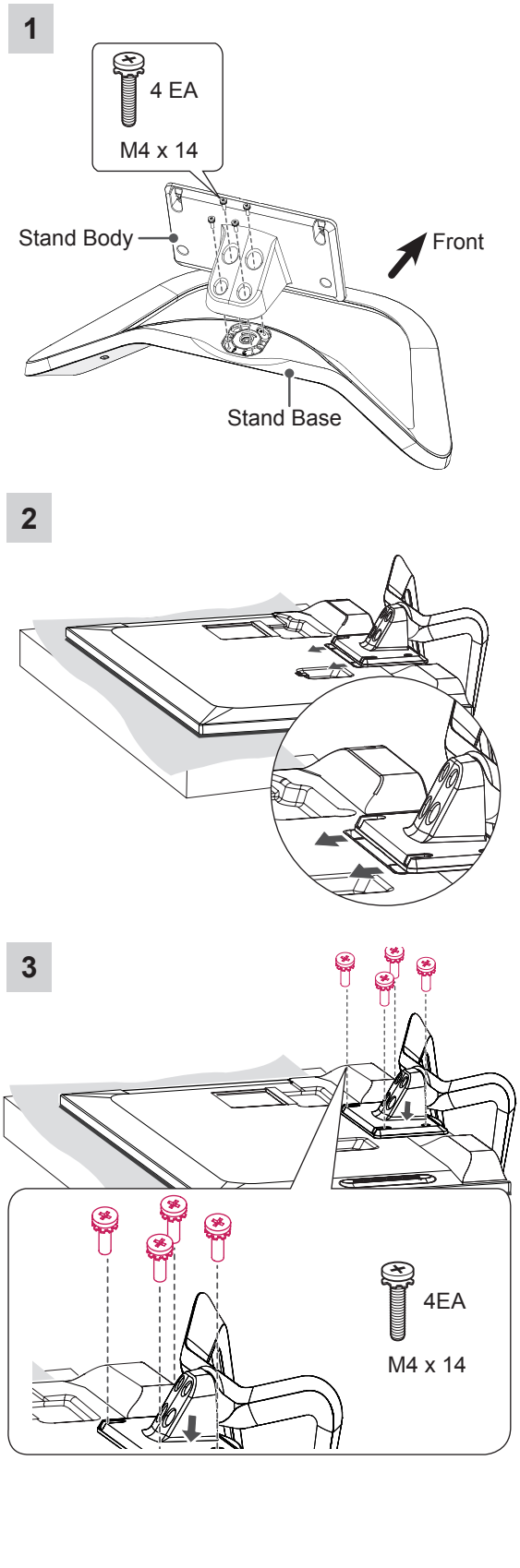
*Image shown may differ from your TV.

Attaching the stand

(Only LP36**, LP63**, 32/37/39/42/47LN54**)



(Only LP860*, 55/60LN54**, 55LA62**)



CAUTION

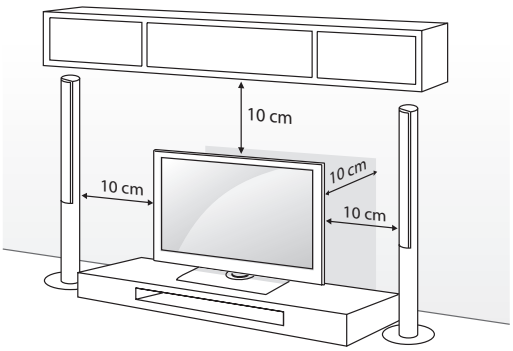
- When attaching the stand to the TV set, place the screen facing down on a cushioned table or flat surface to protect the screen from scratches.
- Make sure that the screws are inserted correctly and fastened securely. If they are not fastened securely enough, the TV may tilt forward after being installed. Do not use too much force and over tighten the screws; otherwise screw may be damaged and not tighten correctly.

NOTE

- Remove the stand before installing the TV on a wall mount by performing the stand attachment in reverse.

Mounting on a table

1 Lift and tilt the TV into its upright position on a table.
- Leave a 10 cm (minimum) space from the wall for proper ventilation.



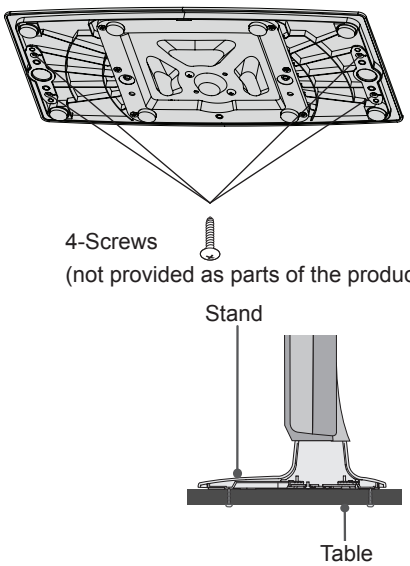
2 Connect the power cord to a wall outlet.

CAUTION

- Do not place the TV near or on sources of heat, as this may result in fire or other damage.

Attaching the TV to a table

Image shown may differ from your TV.
The TV must be attached to desk so it cannot be pulled in a forward/backward direction, potentially causing injury or damaging the product.
(Only 37/39/42/47LN54**, 37/39/42LP36**, 37/39/42LP63**)

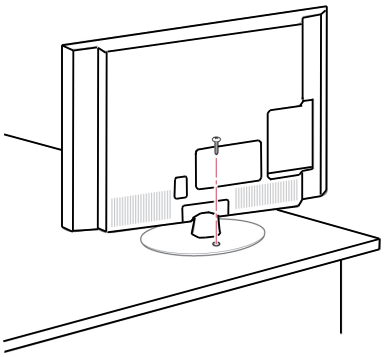


Screws: M5 x L (*L: Table depth + 8-10 mm)
ex) Table depth: 15mm, Screw: M5 x 25

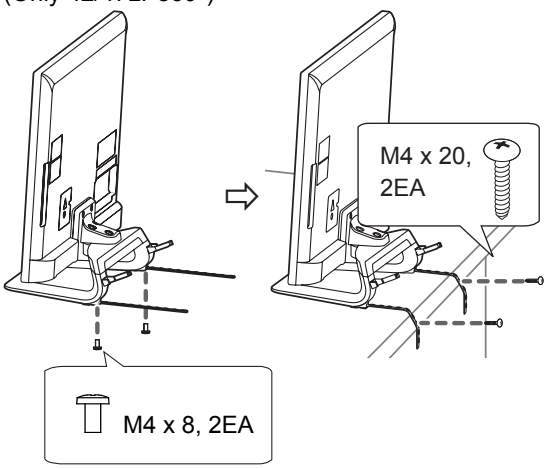
Securing the TV to a table

Fix the TV to a table to prevent from tilting forward, damage, and potential injury.
Mount the TV on a table, and then insert and tighten the supplied screw on the rear of the stand.

(Only 32/37/39/42/47LN54**, LP36**, LP63**)



(Only 42/47LP860*)



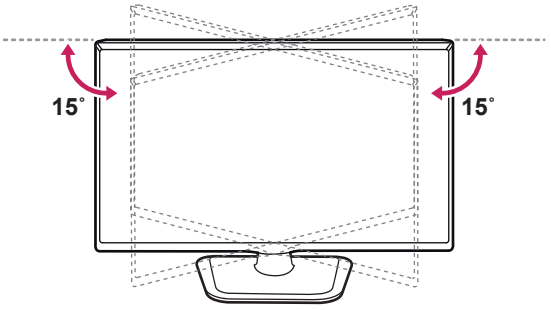
WARNING

- To prevent TV from falling over, the TV should be securely attached to the floor/ wall per installation instructions. Tipping, shaking, or rocking the TV may cause injury.

Adjusting the angle of the TV to suit view

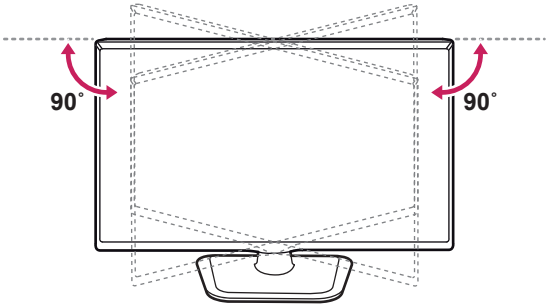
(Only 32/55/60LN54**, 32LP36**, 32LP63**, 42/47/55LP860*, 55LA62**)

Swivel 15 degrees to the left or right and adjust the angle of the TV to suit your view.



(Only 37/39/42/47LN54**, 37/39/42LP36**, 37/39/42LP63**)

Swivel 90 degrees to the left or right and adjust the angle of the TV to suit your view.



CAUTION

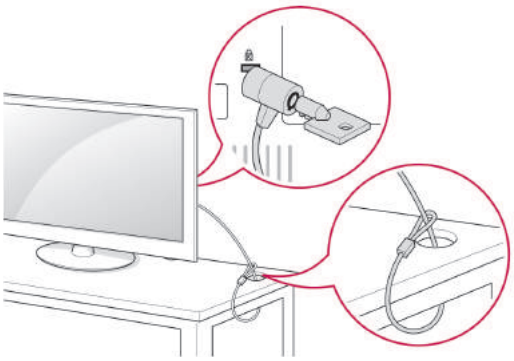
- When adjusting the angle of the product, watch out for your fingers.
  - » Personal injury may occur if hands or fingers are pinched. If the product is tilted too much, it may fall, causing damage or injury.

Using the Kensington security system

(This feature is not available for all models.)

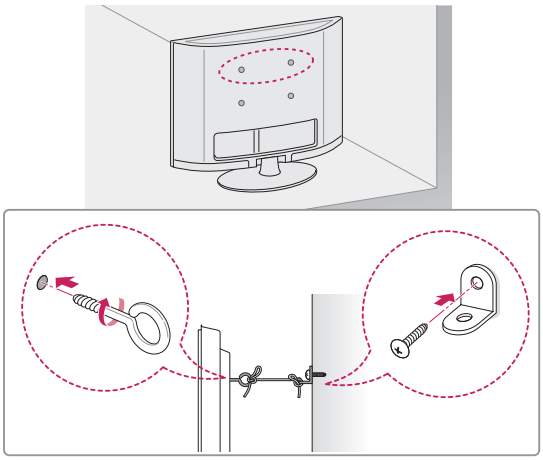
The Kensington security system connector is located at the rear of the TV. For more information of installation and using, refer to the manual provided with the Kensington security system or visit *http://www.kensington.com.*

Connect the Kensington security system cable between the TV and a table.



Securing the TV to a wall

(This feature is not available for all models.)



1. Insert and tighten the eye-bolts, or TV brackets and bolts on the back of the TV.
   - If there are bolts inserted at the eye-bolts position, remove the bolts first.
2. Mount the wall brackets with the bolts to the wall.
   Match the location of the wall bracket and the eye-bolts on the rear of the TV.
3. Connect the eye-bolts and wall brackets tightly with a sturdy rope.
   Make sure to keep the rope horizontal with the flat surface.

CAUTION

- Make sure that children do not climb on or hang on the TV.

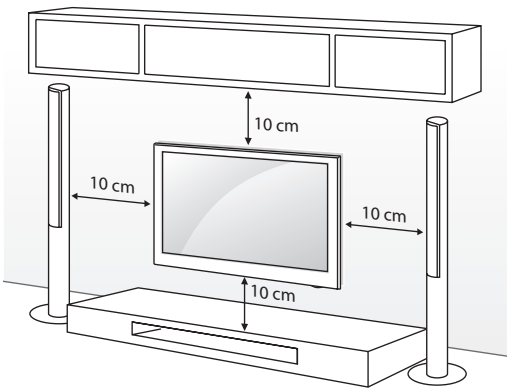
NOTE

- Use a platform or cabinet that is strong and large enough to support the TV securely.
- Brackets, bolts and ropes are not provided. You can obtain additional accessories from your local dealer.

ENGLISH

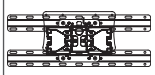
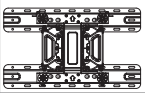
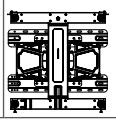
Mounting on a wall

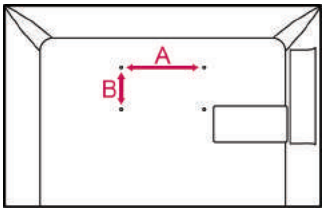
Attach an optional wall mount bracket at the rear of the TV carefully and install the wall mount bracket on a solid wall perpendicular to the floor. When you attach the TV to other building materials, please contact qualified personnel.
LG recommends that wall mounting be performed by a qualified professional installer.



Separate purchase (Wall Mounting Bracket)

Make sure to use screws and wall mount bracket that meet the VESA standard. Standard dimensions for the wall mount kits are described in the following table.

Model	32LN54** 32LP36** 32LP63**	37/39/42LN54** 37/39/42LP36** 37/39/42LP63** 37LP869*
VESA (A x B)	200 x 100	200 x 200
Standard screw	M4	M6
Number of screws	4	4
Wall mount bracket	LSW130B 	LSW230B 
Model	47/55/60LN54** 42/47/55LP860* 55LA62**	
VESA (A x B)	400 x 400	
Standard screw	M6	
Number of screws	4	
Wall mount bracket	LSW430B 	

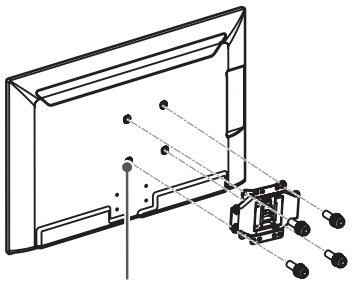


CAUTION

- Disconnect the power first, and then move or install the TV. Otherwise electric shock may occur.
- If you install the TV on a ceiling or slanted wall, it may fall and result in severe injury. Use an authorized LG wall mount bracket and contact the local dealer or qualified personnel.
- Do not over tighten the screws as this may cause damage to the TV and void your warranty.
- Use the screws and wall mount bracket that meet the VESA standard. Any damages or injuries by misuse or using an improper accessory are not covered by the warranty.

NOTE

- Use the screws that are listed on the VESA standard screw specifications.
- The wall mount kit includes an installation manual and necessary parts.
- The wall mount bracket is not provided. You can obtain additional accessories from your local dealer.
- The length of screws may differ depending on the wall mount. Make sure to use the proper length.
- For more information, refer to the manual supplied with the wall mount.
- When attaching a third-party wall mounting bracket to the TV, insert the wall mount inner spacers into the TV wall mount holes to move your TV in vertical angle. Please make sure not to use the spacers for LG wall mounting bracket. (Only 37LP869*)



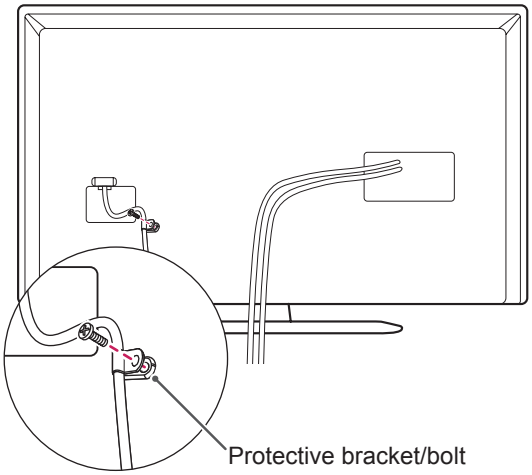
Wall Mount Inner Spacer

Tidying cables

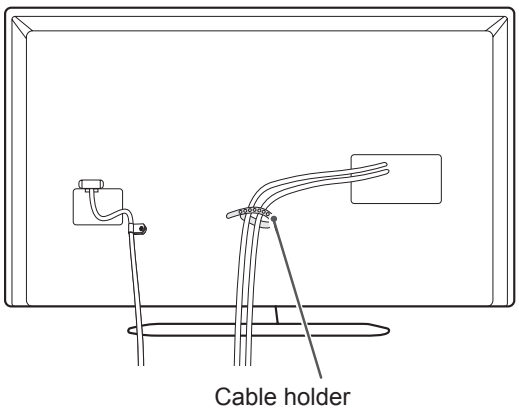
*image shown may differ from your TV.

(Only LP36**, LN54**, LP63**, LA62**)

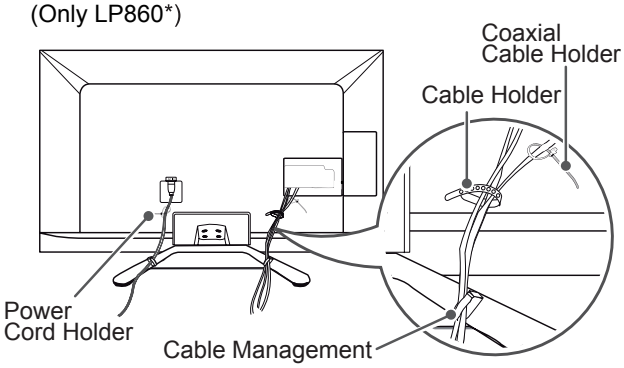
1 Secure the power cord with the protective bracket/bolt.



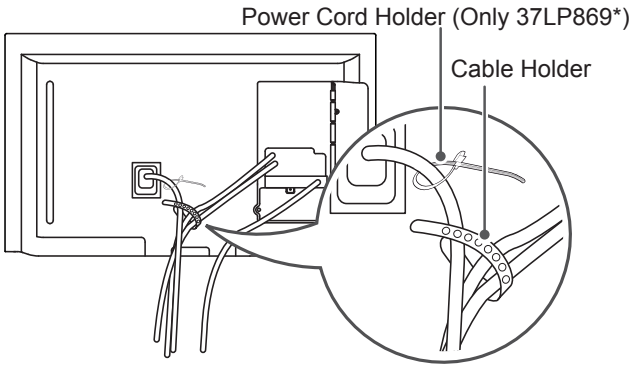
2 Gather and bind the cables with the cable holder.



(Only LP860*)



(Only LP869*)



CAUTION

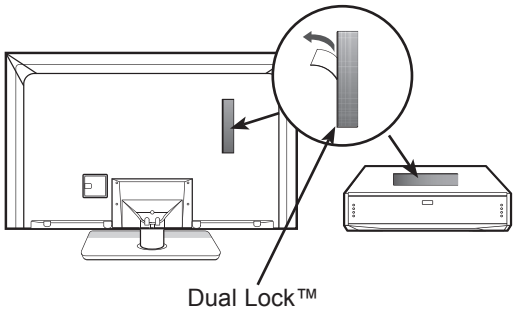
- Do not move the TV by holding the Cable Holder and Power Cord Holder, as the Cable holders may break, and injuries and damage to the TV may occur.

How to use Dual Lock™

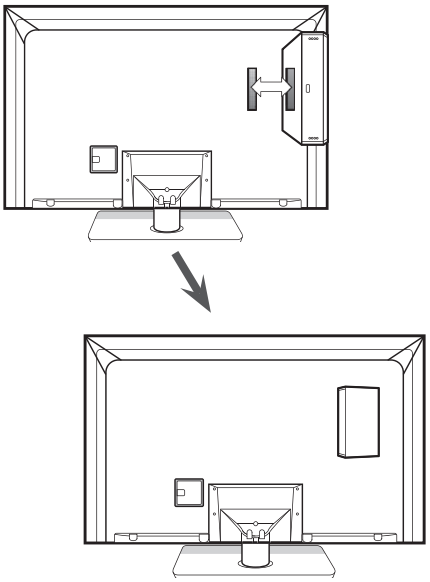
(Only LP63**)

Fix the set-top box to the TV and use it when you want to.

1 After removing the protection paper from the Dual Lock, stick it to the TV and the set-top box as shown.



2 Attach the set-top box to the TV by pressing the Velcro strips together.



NOTE

- Please make sure no foreign substances exist on the surface of the product, and then firmly attach the Dual Lock.
- Before attaching the set-top box to the TV set, let the attached Dual Lock dry for at least three days.

MAKING CONNECTIONS

* image shown may differ from your TV.

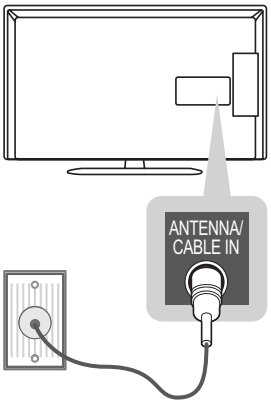
This section on **MAKING CONNECTIONS** mainly uses diagrams for the LP36** models.
Connect various external devices to the TV and switch input modes to select an external device. For more information on external device's connection, refer to the manual provided with each device.
Available external devices are: HD receivers, DVD players, VCRs, audio systems, USB storage devices, PC, gaming devices, and other external devices.

NOTE

- The external device connection may differ from the model.
- Connect external devices to the TV regardless of the order of the TV port.
- If you record a TV program on a DVD recorder or VCR, make sure to connect the TV signal input cable to the TV through a DVD recorder or VCR. For more information on recording, refer to the manual provided with the connected device.
- Refer to the external equipment's manual for operating instructions.
- If you connect a gaming device to the TV, use the cable supplied with the gaming device.
- In PC mode, there may be noise associated with the resolution, vertical pattern, contrast or brightness. If noise is present, change the PC output to another resolution, change the refresh rate to another rate or adjust the brightness and contrast on the PICTURE menu until the picture is clear.
- In PC mode, some resolution settings may not work properly depending on the graphics card.

Antenna connection

Connect the TV to a wall antenna socket with an RF cable (75 Ω).



(*Not Provided)

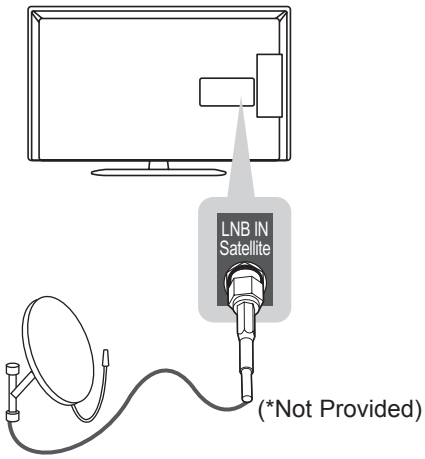
NOTE

- Use a signal splitter to use more than 2 TVs.
- If the image quality is poor, install a signal amplifier properly to improve the image quality.
- If the image quality is poor with an antenna connected, try to realign the antenna in the correct direction.
- An antenna cable and converter are not supplied.
- Supported DTV Audio: MPEG, Dolby Digital, Dolby Digital Plus, HE-AAC

Satellite dish Connection

(Only satellite models)

Connect the TV to a satellite dish to a satellite socket with a satellite RF cable (75 Ω).

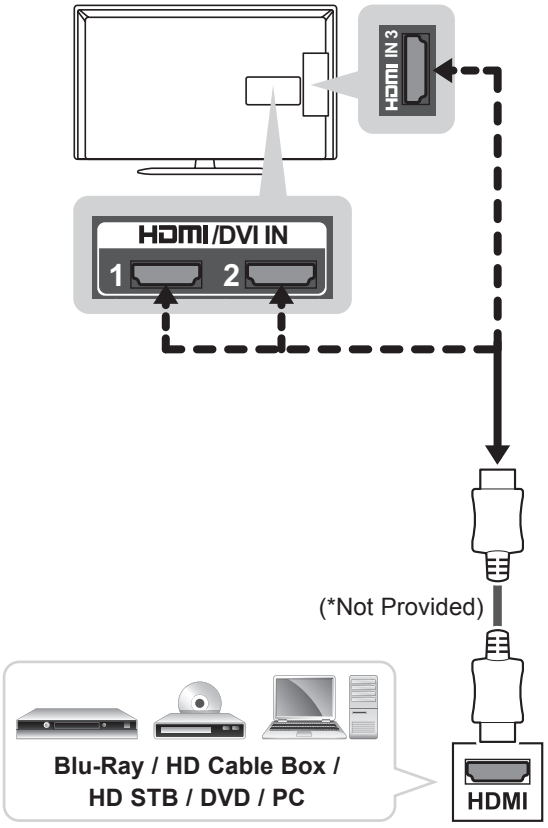


(*Not Provided)

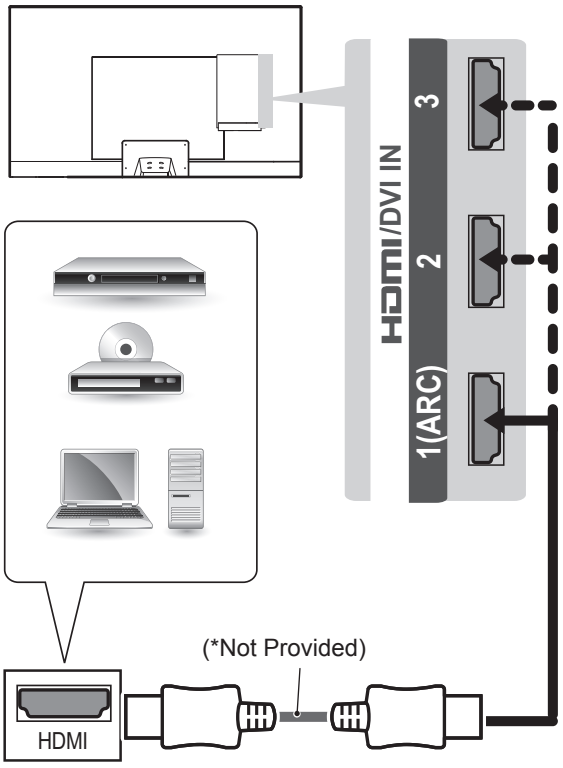
ENGLISH

HDMI connection

Transmits the digital video and audio signals from your PC to the TV. Connect the PC and the TV with the HDMI cable as shown. Choose any HDMI input port to connect. It does not matter which port you use.
(Only LN54**, LP36**, LP63**, LP860*, LA62**)



(Only LP869*)



NOTE

- It is recommended to use the TV with the HDMI connection for the best image quality.
- Use the latest High Speed HDMI™ Cable with CEC (Customer Electronics Control) function.
- High Speed HDMI™ Cables are tested to carry an HD signal up to 1080p and higher.
- Supported HDMI Audio format : Dolby Digital, PCM (Up to 192 KHz, 32KHz/44.1K Hz/48KHz/88KHz/96KHz/176KHz/192KHz), DTS (Only LP860*)

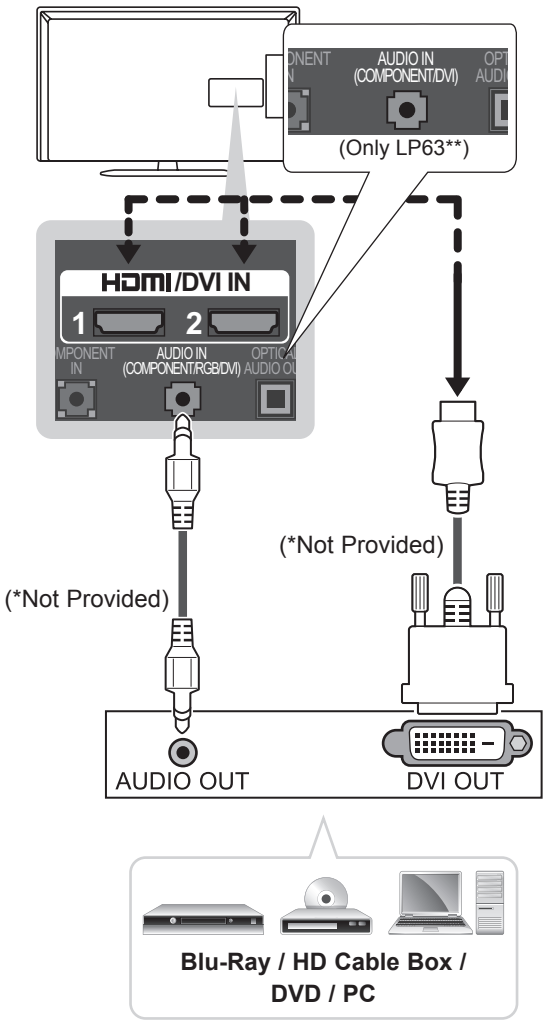
(Only LP86**)

ARC (Audio Return Channel)

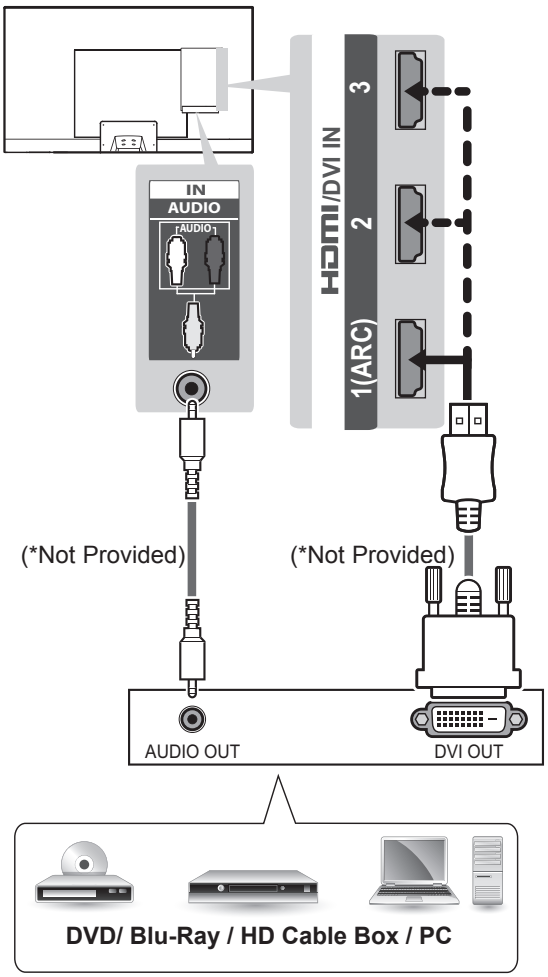
- An external audio device that supports SIMPLINK and ARC must be connected using **HDMI/DVI IN 1 (ARC)** port.
- When connected with a high-speed HDMI cable, the external audio device that supports ARC outputs optical SPDIF without additional optical audio cable and supports the SIMPLINK function.

DVI to HDMI connection

Transmits the digital video signal from an external device to the TV. Connect the external device and the TV with the DVI-HDMI cable as shown. To transmit an audio signal, connect an audio cable. (Only LN54**, LP36**, LP63**, LA62**)



(Only LP869*)

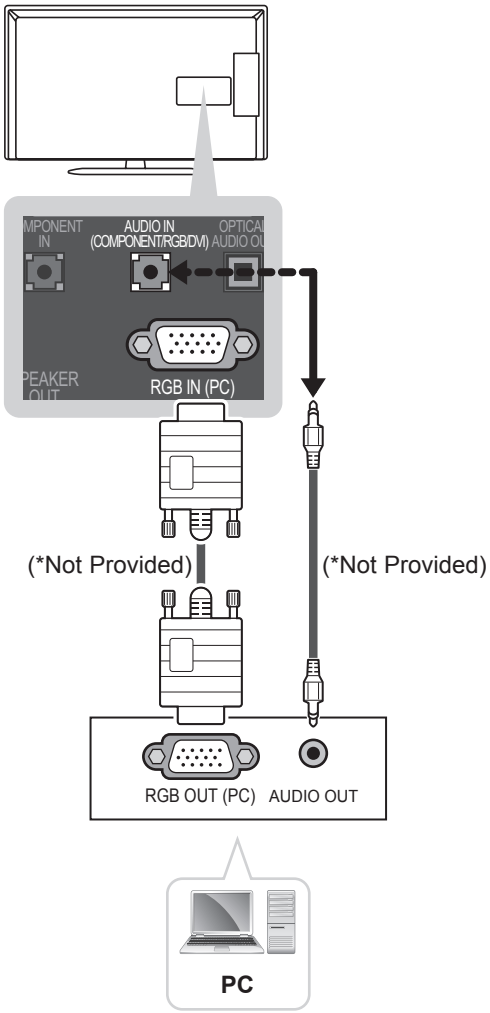


NOTE

- Depending on the graphics card, DOS mode may not work if a HDMI to DVI Cable is in use.
- When using the HDMI/DVI cable, only Single link is supported.

RGB-PC connection

Transmits the video signal from PC to the TV. To transmit an audio signal, connect an audio cable. (Only LN54**, LP36**, LA62**)



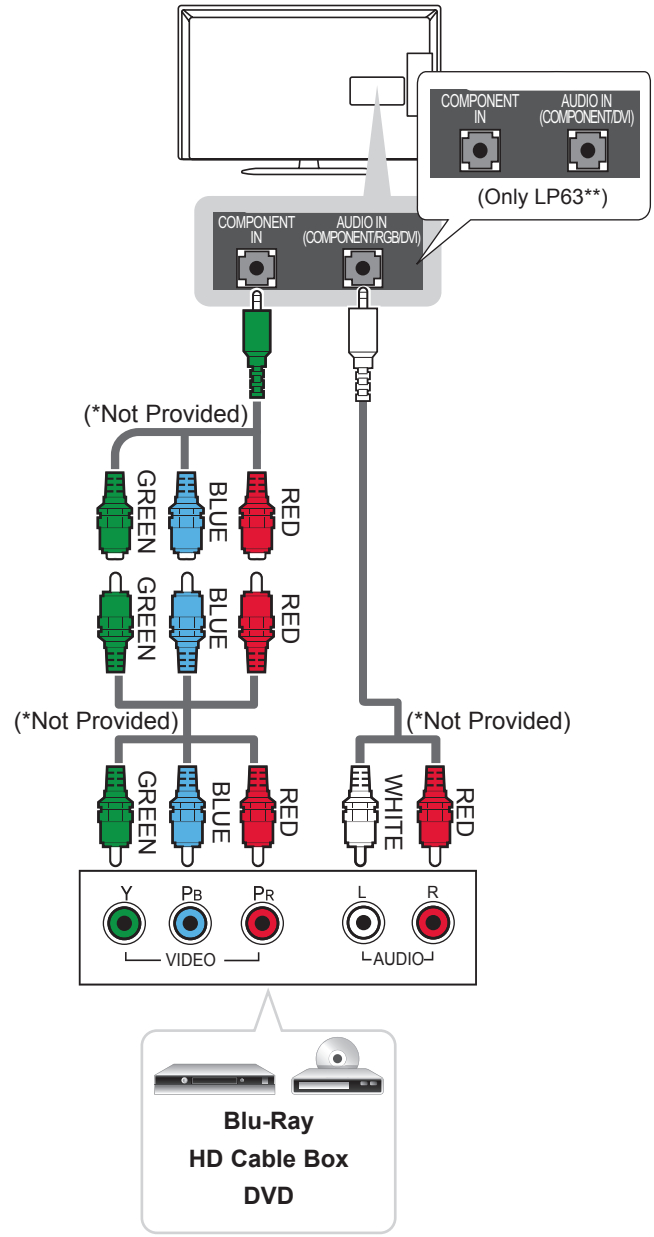
NOTE

- Do not connect a component cable when already using a RGB-PC cable. (Only LN549E)

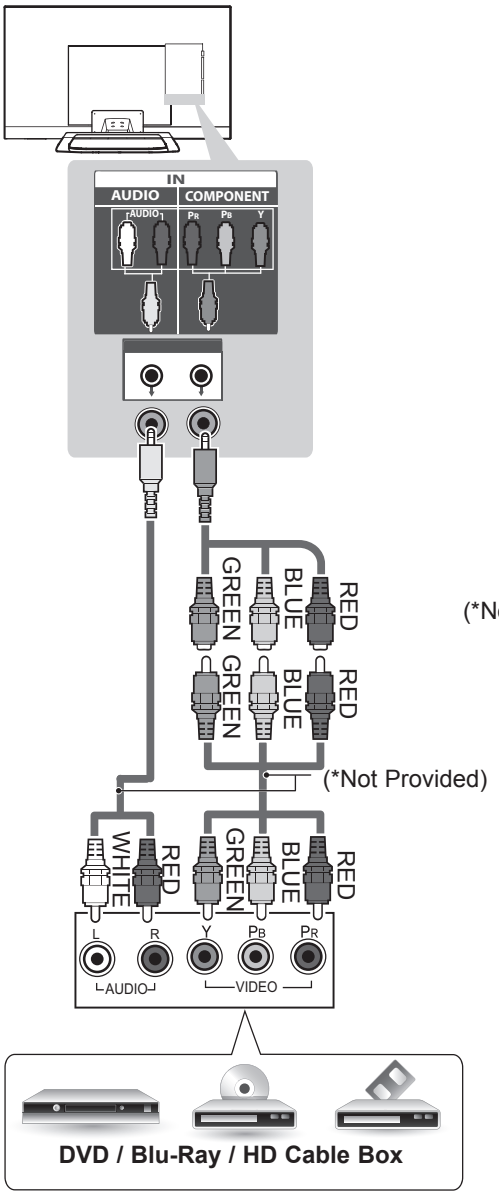
Component connection

Transmits the analogue video and audio signals from an external device to the TV. Connect the external device and the TV with the component cable as shown.

(Only LP36**, LN54**, LP63**, LA62**)



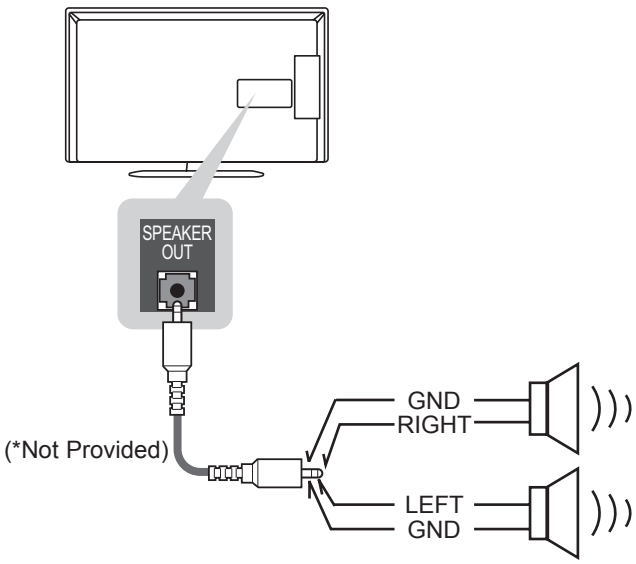
(Only LP869*)



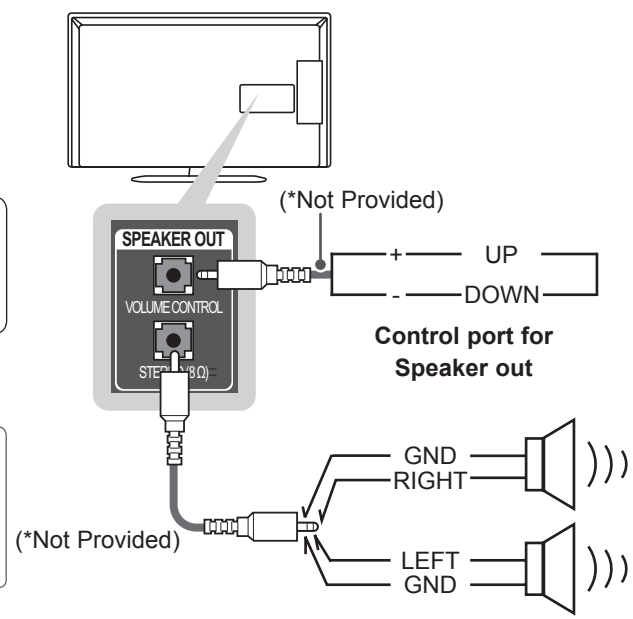
Speaker output setup

Connect the external speaker to the SPEAKER OUT jack on the TV.

(Only LN548C, LN549C, LP36**, LA62**)



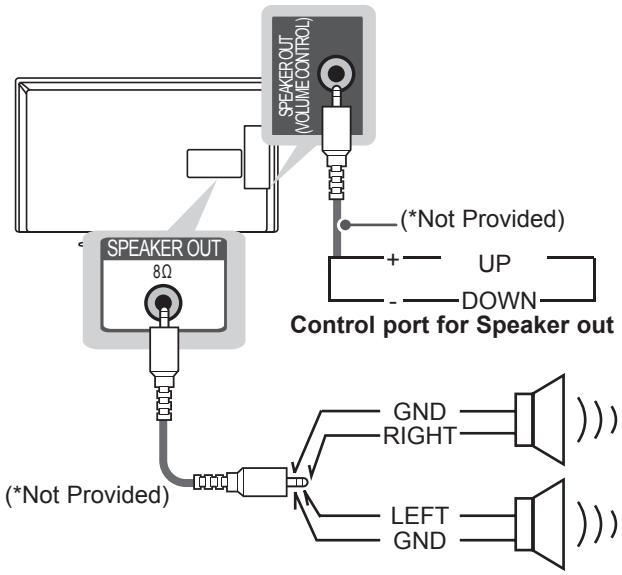
(Only LN549E, LP63**, LP860*)



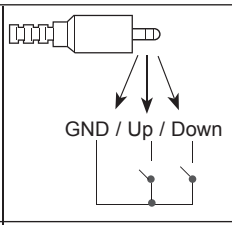
NOTE

- If cables are not installed correctly, it could cause this image to display in black and white or with distorted colours.

(Only LP869*)



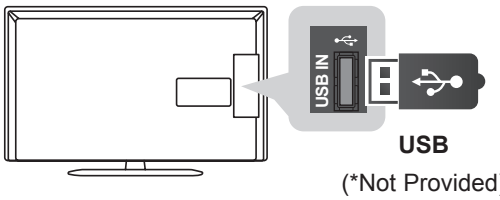
Method of Volume control port

Cable Spec.		• Each Up/ Down pin is pulled to 3.3V with CPU GPIO. • CPU detects transition from 3.3V to GND level for volume control.

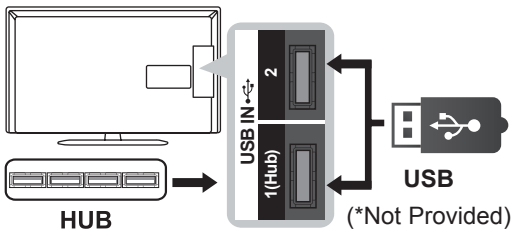
USB connection

Connect a USB storage device such as s USB flash memory, external hard drive or a USB memory card reader to the TV and access the My media menu to use various multimedia files.

(Only LN54**, LP36**, LP63**, LA62**)



(Only LP86**)

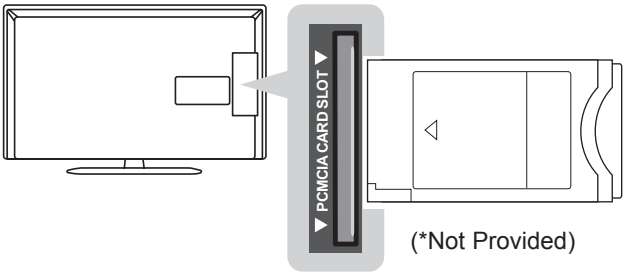


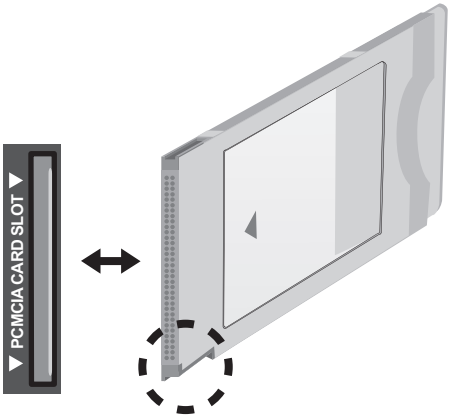
NOTE

- To use a USB Hub device, make sure that it is connected to the **USB IN 1 (HUB)** port.
- Some USB Hubs may not work. If a USB device connected using a USB Hub is not detected, connect it to the USB port on the TV directly.

CI module connection

View the encrypted (pay) services in digital TV mode. This feature is not available in all countries.





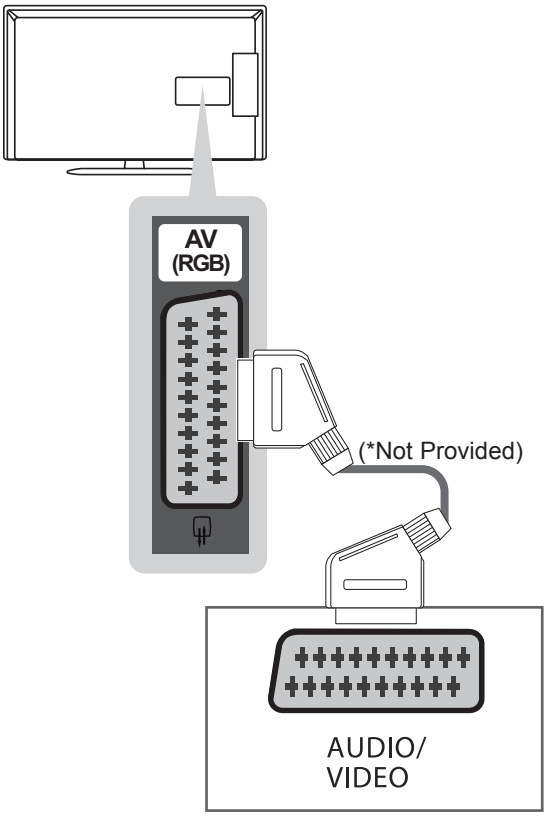
NOTE

- Check if the CI module is inserted into the PCMCIA card slot in the right direction. If the module is not inserted properly, this can cause damage to the TV and the PCMCIA card slot.

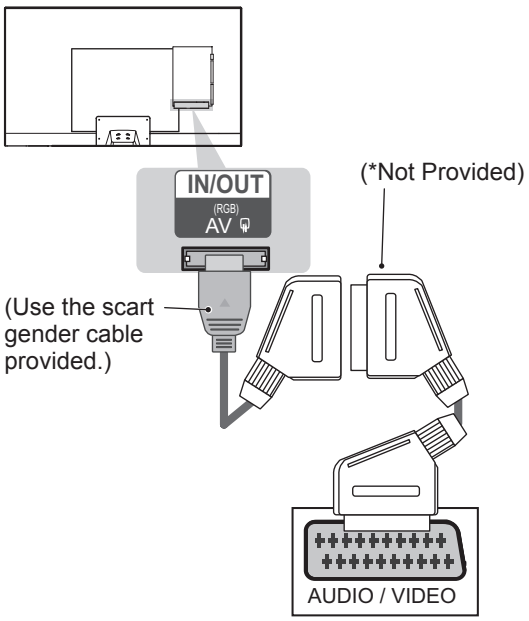
Euro Scart connection

Transmits the video and audio signals from an external device to the TV set. Connect the external device and the TV set with the euro scart cable as shown.

(Only LN54**, LP36**, LP63**, LP860*, LA62**)



(Only LP869*)



Output Type / Current input model	AV (TV Out[1])
Digital TV	Digital TV
Analogue TV, AV	Analogue TV
Component / RGB	Analogue TV
HDMI	Analogue TV

1 Outputs Analogue TV or Digital TV signals.

NOTE

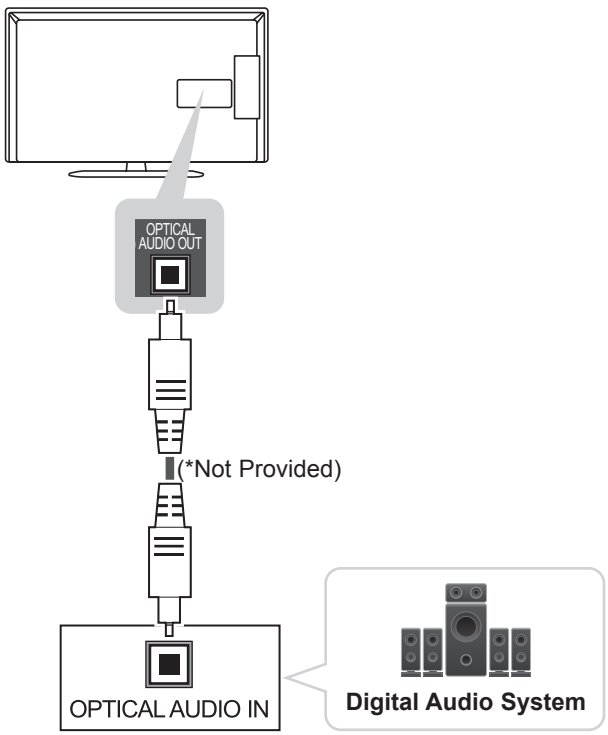
- Any Euro scart cable used must be signal shielded.

Audio connection

You may use an optional external audio system instead of the built-in speaker.

Digital optical audio connection

Transmits a digital audio signal from the TV to an external device. Connect the external device and the TV with the optical audio cable as shown.

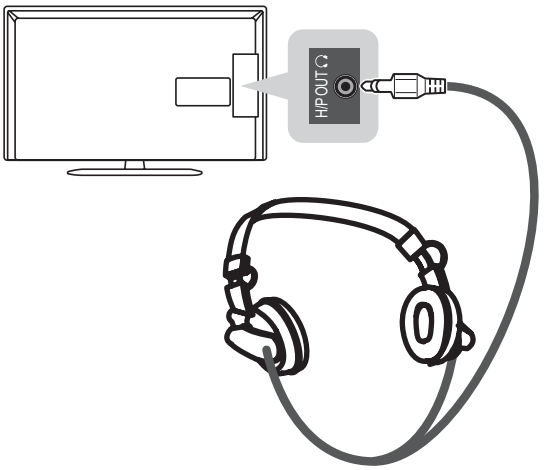


NOTE

- Do not look into the optical output port. Looking at the laser beam may damage your vision.
- Audio with ACP (Audio Copy Protection) function may block digital audio output.

Headphone connection

Transmits the headphone signal from the TV to an external device. Connect the external device and the TV with the headphone as shown.



(*Not Provided)

NOTE

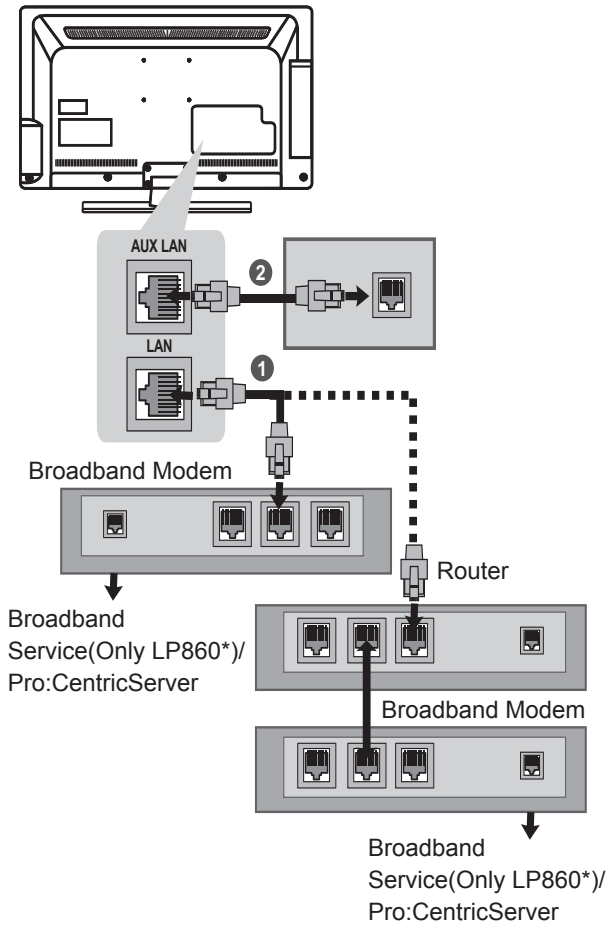
- AUDIO menu items are disabled when connecting a headphone.
- When changing **AV MODE** with a headphone connected, the change is applied to video but not to audio.
- Optical Digital Audio Out is not available when connecting a headphone.
- Headphone impedance: 16 Ω
- Max audio output of headphone: 9mW to 15 mW
- Headphone jack size: 0.35 cm

Network setup

Wired network connection

(Only LP63**, LP86**)

This TV can be connected to a Pro:Centric server or local area network (LAN) via the **LAN** port. After making the physical connection, the TV needs to be set up for network communication.
Connect the LAN port of the Modem or Router from Pro:Centric server to the **LAN** port on the TV. (Image shown may differ from your TV.)



❶ Connect the LAN port of the Modem or Router to the LAN port on the TV.
❷ Connect the LAN port of the PC to the AUX LAN port on the TV. (Only LP860*)

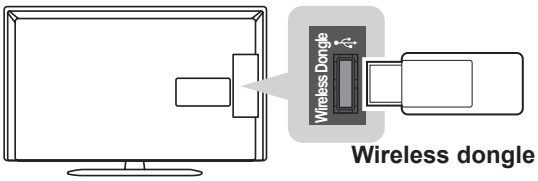
CAUTION

- AUX LAN : Only LP860*
- Do not connect a modular phone cable to the LAN port.
- Since there are various connection methods, please follow the specifications of your telecommunication carrier or internet service provider.

Wireless network connection

(Only LN549E)

This TV can be connected to wireless network via the **Wireless Dongle** port. After making the physical connection, the TV needs to be set up for network communication.
Connect the wireless dongle to the **Wireless Dongle** port on the TV.



Wireless dongle
(*Not Provided)

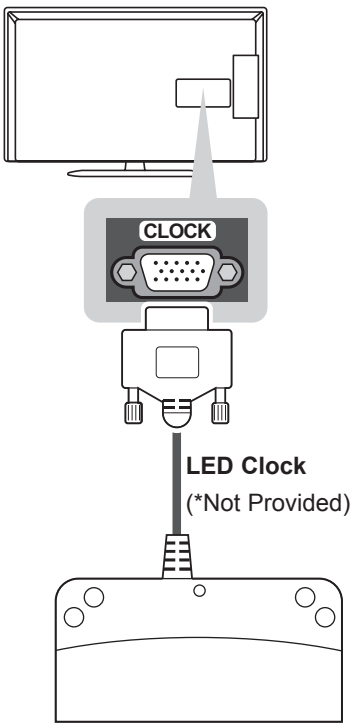
CAUTION

- Do not remove the wireless dongle while the wireless network is working.

LED Clock connection

(Only LP63**, LP860*)

This TV can be connected to a LED Clock via the **CLOCK** port.

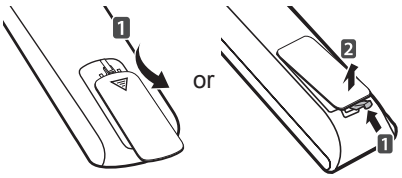


LED Clock
(*Not Provided)

ENGLISH

REMOTE CONTROL

The descriptions in this manual are based on the buttons on the remote control.
Please read this manual carefully and use the TV correctly.
To replace batteries, open the battery cover, replace batteries (1.5 V AAA) matching the ⊕ and ⊖ ends to the label inside the compartment, and close the battery cover.
To remove the batteries, perform the installation actions in reverse.

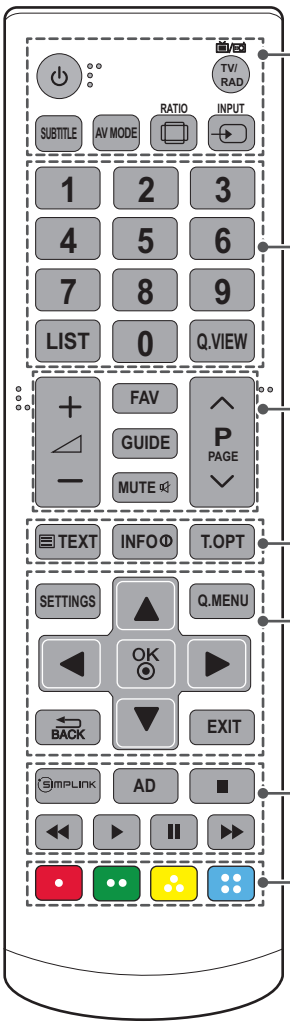


CAUTION

- Do not mix old and new batteries, as this may damage the remote control.

Make sure to point the remote control toward the remote control sensor on the TV.

(Only LN548C, LN549C, LP36**)



(POWER) Turns the TV on or off.
TV/RAD Selects Radio, TV and DTV programme.
SUBTITLE Recalls your preferred subtitle in digital mode.
AV MODE Selects an AV mode.
RATIO Resizes an image.
INPUT Changes the input source.

Number buttons Enters numbers.
LIST Accesses the saved programme list.
Q.VIEW Returns to the previously viewed programme.

+ - Adjusts the volume level.
FAV Accesses your favourite programme list.
GUIDE Shows programme guide.
MUTE Mutes all sounds.
P Scrolls through the saved programmes or channels.
PAGE Moves to the previous or next screen.

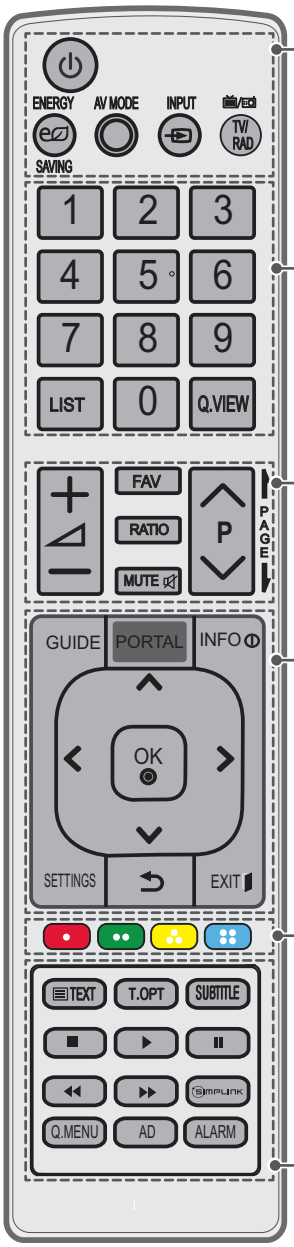
Teletext buttons (TEXT/T.OPT) These buttons are used for teletext.
INFO Views the information of the current programme and screen.

SETTINGS Accesses the main menus.
Q.MENU Accesses the Quick menus.
Navigation buttons (up/down/left/right) Scrolls through menus or options.
OK Selects menus or options and confirms your input.
BACK Returns to the previous level.
EXIT Clears on-screen displays and return to TV viewing.

SIMPLINK Accesses the AV devices connected with the HDMI cable through HDMI-CEC. Opens the SIMPLINK menu.
AD Switches the Audio Description On or Off.
Control buttons (■, ▶, ❚❚, ◀◀, ▶▶) Controls the MY MEDIA menus, or the SIMPLINK compatible devices (USB,SIMPLINK).

Coloured buttons These access special functions in some menus.

(Only LN549E, LP63**, LP860*)



(POWER) Turns the TV on or off.
ENERGY SAVING Adjusts the brightness of the screen to reduce energy consumption.
AV MODE Selects an AV mode.
INPUT Changes the input source.
TV/RAD Selects Radio, TV and DTV programme.

Number buttons Enters numbers.
LIST Accesses the saved programme list.
Q.VIEW Returns to the previously viewed programme.

+ - Adjusts the volume level.
FAV Accesses your favourite programme list.
RATIO Resizes an image.
MUTE Mutes all sounds.
P Scrolls through the saved programmes or channels.
PAGE Moves to the previous or next screen.

GUIDE
- Shows programme guide. (Only LP63**, LP860*)
- Shows Contents List in EzSign mode. (Only LN549E)

PORTAL
- Displays and removes hotel interactive menu. (Only LP63**, LP860*)
- Displays the EzSign content on a TV Screen. (Only LN549E)

INFO
- Views the information of the current programme and screen. (Only LP63**, LP860*)
- Shows or hides the information on TV remote control buttons in EzSign mode. (Only LN549E)

Navigation buttons (up/down/left/right) Scrolls through menus or options.
OK Selects menus or options and confirms your input.
SETTINGS Selects a menu. Clears all on-screen displays and returns to TV viewing from any menu.
(BACK) Returns to the previous level.
EXIT Clears on-screen displays and return to TV viewing.

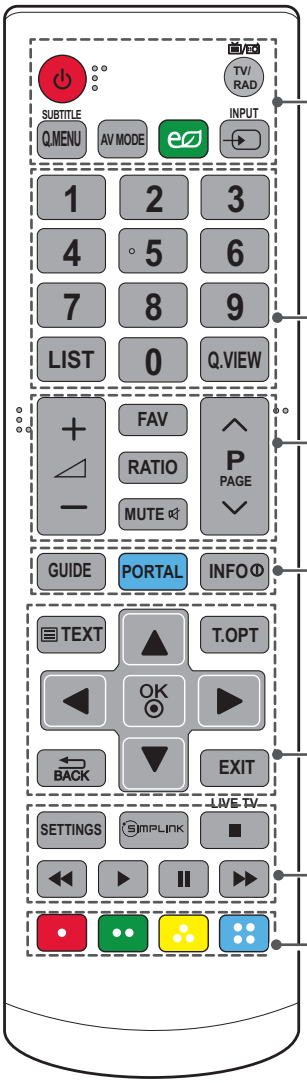
Coloured buttons These access special functions in some menus.

Teletext buttons (TEXT/T.OPT) These buttons are used for teletext.
SUBTITLE Recalls your preferred subtitle in digital mode.
Control buttons (■, ▶, II, ◀◀, ▶▶)
- Controls the MY MEDIA menus, or the SIMPLINK compatible devices (USB,SIMPLINK). (Only LP63**, LP860*)
- Not functional when EzSign contents is on. (Only LN549E)

SIMPLINK Accesses the AV devices connected with the HDMI cable through HDMI-CEC. Opens the SIMPLINK menu.
Q.MENU Accesses the Quick menus.
AD Switches the Audio Description On or Off.
ALARM Sets the alarm function.

ENGLISH

(Only LP869*)



(POWER) Turns the TV on or off.
TV/RAD Selects Radio, TV and DTV programme.
SUBTITLE Recalls your preferred subtitle in digital mode.
Q.MENU Accesses the Quick menus.
AV MODE Selects an AV mode.
ENERGY SAVING Adjusts the brightness of the screen to reduce energy consumption.
INPUT Changes the input source.

Number buttons Enters numbers.
LIST Accesses the saved programme list.
Q.VIEW Returns to the previously viewed programme.

+ - Adjusts the volume level.
FAV Accesses your favourite programme list.
RATIO Resizes an image.
MUTE Mutes all sounds.
P Scrolls through the saved programmes or channels.
PAGE Moves to the previous or next screen.

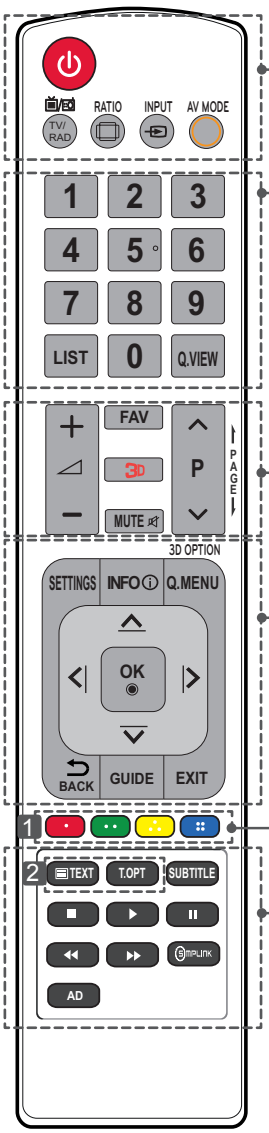
GUIDE Shows programme guide.
PORTAL Displays and removes hotel interactive menu.
INFO Views the information of the current programme and screen.

Teletext buttons (TEXT/T.OPT) These buttons are used for teletext.
Navigation buttons (up/down/left/right) Scrolls through menus or options.
OK Selects menus or options and confirms your input.
BACK Returns to the previous level.
EXIT Clears on-screen displays and return to TV viewing.

SETTINGS Accesses the main menus.
SIMPLINK Accesses the AV devices connected with the HDMI cable through HDMI-CEC. Opens the SIMPLINK menu.
LIVE TV Return to LIVE TV.
Control buttons (■, ▶, ❚❚, ◀◀, ▶▶) Controls the MY MEDIA menus, or the SIMPLINK compatible devices (USB,SIMPLINK).

Coloured buttons These access special functions in some menus.

(Only LA62**)



(POWER) Turns the TV on or off.
TV/RAD Selects Radio, TV and DTV programme.
RATIO Resizes an image.
INPUT Changes the input source.
AV MODE Selects an AV mode.

Number buttons Enters numbers.
LIST Accesses the saved programme list.
Q.VIEW Returns to the previously viewed programme.

FAV Accesses your favourite programme list.
3D Used for viewing 3D video.
MUTE Mutes all sounds.
+ **-** Adjusts the volume level.
∧**P**∨ Scrolls through the saved programmes or channels.
PAGE Moves to the previous or next screen.

3D OPTION Use this to view 3D video.
SETTINGS Accesses the main menus.
INFO Views the information of the current programme and screen.
Q. MENU Accesses the quick menus.
Navigation buttons (up/down/left/right) Scrolls through menus or options.
OK Selects menus or options and confirms your input.
BACK Returns to the previous level.
GUIDE Shows programme guide.
EXIT Clears all on-screen displays and return to TV viewing.

1 **Colour buttons** These access special functions in some menus.
(: Red, : Green, : Yellow, : Blue)

2 **TELETEXT BUTTONS** These buttons are used for teletext.
SUBTITLE Recalls your preferred subtitle in digital mode.
Control buttons (■, ▶, II, ◀◀, ▶▶) Controls the Premium contents, Time Machine or Smart Share menus or the SIMPLINK compatible devices (USB or SIMPLINK or Time Machine).
II (FREEZE) Freezes the current frame while using the TV, AV, Component, or HDMI input source.
SIMPLINK Accesses the AV devices connected with the HDMI cable through HDMI-CEC. Opens the SIMPLINK menu.
AD Switches the Audio Description On or Off.

MAINTENANCE

Cleaning your TV

Clean your TV regularly to keep the best performance and to extend the product lifespan.

CAUTION

- Make sure to turn the power off and disconnect the power cord and all other cables first.
- When the TV is left unattended and unused for a long time, disconnect the power cord from the wall outlet to prevent possible damage from lightning or power surges.

Screen, frame, cabinet and stand

- To remove dust or light dirt, wipe the surface with a dry, clean, and soft cloth.
- To remove major dirt, wipe the surface with a soft cloth dampened in clean water or a diluted mild detergent. Then wipe immediately with a dry cloth.

CAUTION

- Avoid touching the screen at all times, as this may result in damage to the screen.
- Do not push, rub, or hit the screen surface with your fingernail or a sharp object, as this may result in scratches and image distortions.
- Do not use any chemicals as this may damage the product.
- Do not spray liquid onto the surface. If water enters the TV, it may result in fire, electric shock, or malfunction.

Power cord

Remove the accumulated dust or dirt on the power cord regularly.

TROUBLESHOOTING

The software version can be updated for improvement in performance.Customer needs to ensure the compatibility of customer's equipment with LGE software. If needed, please consult with LGE and upload revised software version according to the guidance provided by LGE.

Problem	Solution
Cannot control the TV with the remote control.	• Check the remote control sensor on the product and try again. • Check if there is any obstacle between the product and the remote control. • Check if the batteries are still working and properly installed (⊕ to ⊕, ⊖ to ⊖).
No image display and no sound is produced.	• Check if the product is turned on. • Check if the power cord is connected to a wall outlet. • Check if there is a problem in the wall outlet by connecting other products.
The TV turns off suddenly.	• Check the power control settings. The power supply may be interrupted. • Check if the Auto sleep feature is activated in the Time settings.
When connecting to the PC (RGB/HDMI DVI), 'No signal' or 'Invalid Format' is displayed.	• Turn the TV off/on using the remote control. • Reconnect the RGB/HDMI cable. • Restart the PC with the TV on.

CAUTION FOR USING EZSIGN

Only LN549E

- Do not remove a USB drive while data is being copied. It can corrupt the data and EzSign may not work properly.
- While loading a USB device or dongle, your TV may function slower than normal.
- Some user-created subtitles may not work properly.
- Some special characters are not supported in subtitles.
- HTML tags are not supported in subtitles.
- Subtitles in languages other than the supported languages are not available.
- EzSign TV function does not work before completing the initial setup Wizard. Make sure to complete the initial setup Wizard by turning on the TV after installation.
- If the time is set according to the TV signal, it may not appeared exactly for some region. In that case, set the time manually.
- It is recommended that you copy files to the TV memory before playing them, as playing directly from the USB memory for an extended period of time may cause the device to overheat.
- In EzSign TV mode, some remote control keys may not work.
- EzSign TV dose not support the USB HUB. It is recommended that you connect a USB device directly to the TV without using a USB extension cable as it may not work properly.
- It is recommended that you use EzSign TV within 8 hours per day as it is standard.
- Refer to the EzSign Editor user guide for details.
- EzSign TV does not support Store Demo.
- Supported external subtitle format:*.smi/*.srt/*.sub(MicroDVD, Subviewer 1.0/2.0)/*.ass/*.ssa/*.txt(TMPlayer)/*.psb(PowerDivX)
- Do not update the EzSign content via wireless networking and a USB drive at the same time. And do not play contentfrom a USB drive while updating EzSign content via wireless networking.

SPECIFICATIONS

Product specifications may be changed without prior notice due to upgrade of product functions.

MODEL		32LN54**	37LN54**	39LN54**
		32LN548C-ZA 32LN549C-ZA 32LN549E-ZA	37LN548C-ZA 37LN549C-ZA 37LN549E-ZA	39LN548C-ZA 39LN549C-ZA 39LN549E-ZA
Dimensions (W x H x D)	With stand (mm)	738 x 497 x 207	849 x 561 x 236	894 x 587 x 236
	Without stand (mm)	738 x 449 x 79.0	849 x 512 x 79.0	894 x 537 x 79.0
Weight	With stand (kg)	7.0	9.1	9.7
	Without stand (kg)	6.4	8.0	8.6
Power requirement		AC 100-240 V~ 50 / 60 Hz	AC 100-240 V~ 50 / 60 Hz	AC 100-240 V~ 50 / 60 Hz
Power consumption		80 W	100 W	100W
MODEL		42LN54**	47LN54**	55LN54**
		42LN548C-ZA 42LN549C-ZA 42LN549E-ZA	47LN548C-ZA 47LN549C-ZA 47LN549E-ZA	55LN549E-ZE
Dimensions (W x H x D)	With stand (mm)	968 x 629 x 236	1080 x 694 x 264	1250 x 803 x 343
	Without stand (mm)	968 x 579 x 79.0	1080 x 642 x 80.5	1250 x 737 x 79.1
Weight	With stand (kg)	10.7	14.7	21.9
	Without stand (kg)	9.6	13.4	19.1
Power requirement		AC 100-240 V~ 50 / 60 Hz	AC 100-240 V~ 50 / 60 Hz	AC 100-240 V~ 50 / 60 Hz
Power consumption		110 W	130 W	160 W

MODEL		60LN54**	32LP36**	37LP36**
		60LN549E-ZE	32LP360H-ZA 32LP361H-ZA	37LP360H-ZA 37LP361H-ZA
Dimensions (W x H x D)	With stand (mm)	1359 x 866 x 297	738 x 497 x 207	849 x 561 x 236
	Without stand (mm)	1359 x 799 x 67.2	738 x 449 x 79.0	849 x 512 x 79.0
Weight	With stand (kg)	27.0	7.0	9.1
	Without stand (kg)	24.2	6.4	8.0
Power requirement		AC 100-240 V~ 50 / 60 Hz	AC 100-240 V~ 50 / 60 Hz	AC 100-240 V~ 50 / 60 Hz
Power consumption		200 W	80 W	100 W

MODEL		39LP36**	42LP36**	32LP63**
		39LP360H-ZA 39LP361H-ZA	42LP360H-ZA 42LP361H-ZA	32LP630H-ZA 32LP631H-ZA 32LP632H-ZA
Dimensions (W x H x D)	With stand (mm)	894 x 587 x 236	968 x 629 x 236	738 x 497 x 207
	Without stand (mm)	894 x 537 x 79.0	968 x 579 x 79.0	738 x 449 x 79.0
Weight	With stand (kg)	9.7	10.7	7.0
	Without stand (kg)	8.6	9.6	6.4
Power requirement		AC 100-240 V~ 50 / 60 Hz	AC 100-240 V~ 50 / 60 Hz	AC 100-240 V~ 50 / 60 Hz
Power consumption		100W	110 W	80 W

MODEL		37LP63**	39LP63**	42LP63**
		37LP630H-ZA 37LP631H-ZA 37LP632H-ZA	39LP630H-ZA 39LP631H-ZA 39LP632H-ZA	42LP630H-ZA 42LP631H-ZA
Dimensions (W x H x D)	With stand (mm)	849 x 561 x 236	894 x 587 x 236	968 x 629 x 236
	Without stand (mm)	849 x 512 x 79.0	894 x 537 x 79.0	968 x 579 x 79.0
Weight	With stand (kg)	9.1	9.7	10.7
	Without stand (kg)	8.0	8.6	9.6
Power requirement		AC 100-240 V~ 50 / 60 Hz	AC 100-240 V~ 50 / 60 Hz	AC 100-240 V~ 50 / 60 Hz
Power consumption		100 W	100W	110 W

MODEL		42LP860*	47LP860*	55LP860*
		42LP860H-ZA	47LP860H-ZA	55LP860H-ZA
Dimensions (W x H x D)	With stand (mm)	957 x 635 x 294	1069 x 695 x 327	1238 x 802 x 343
	Without stand (mm)	957 x 574 x 35.0	1069 x 637 x 35.5	1238 x 733 x 35.2
Weight	With stand (kg)	14.3	17.2	22.7
	Without stand (kg)	12.4	14.7	20.0
Power requirement		AC 100-240 V~ 50 / 60 Hz	AC 100-240 V~ 50 / 60 Hz	AC 100-240 V~ 50 / 60 Hz
Power consumption		110 W	120 W	140 W

MODEL		37LP869*	55LA62**
		37LP869H-ZA	55LA625C-ZA
Dimensions (W x H x D)	With stand (mm)	-	1246 x 803 x 343
	Without stand (mm)	856 x 524 x 35.5	1246 x 732 x 77.2
Weight	With stand (kg)	-	21.5
	Without stand (kg)	10.5	18.7
Power requirement		AC 100-240 V~ 50 / 60 Hz	AC 100-240 V~ 50 / 60 Hz
Power consumption		90 W	160 W

CI Module Size (W x H x D)		100.0 mm x 55.0 mm x 5.0 mm
Environment condition	Operating Temperature	0 °C to 40 °C
	Operating Humidity	Less than 80 %
	Storage Temperature	-20 °C to 60 °C
	Storage Humidity	Less than 85 %

	Satellite Digital TV[1]	Digital TV[2]	Digital TV	Analogue TV
Television system	DVB-T DVB-C DVB-S/S2	DVB-T/T2 DVB-C	DVB-T DVB-C	PAL/SECAM B/G/D/K, PAL I/I', SECAM L/L'[3]
Programme coverage	VHF, UHF C-Band, Ku-Band		VHF, UHF	VHF: E2 to E12, UHF : E21 to E69, CATV: S1 to S20, HYPER: S21 to S47
Maximum number of storable programmes	6,000		1,500	
External antenna impedance	75 Ω			

1 Only satellite models
2 Only DVB-T2 support models
3 Except for DVB-T2 support models

(Only LP86**)

Wireless LAN module(TWFM-B006D) specification	
Standard	IEEE802.11a/b/g/n
Frequency Range	2400 to 2483.5 MHz 5150 to 5250 MHz 5725 to 5850 MHz (for Non EU)
Output Power (Max.)	802.11a: 11 dBm 802.11b: 14 dBm 802.11g: 10.5 dBm 802.11n - 2.4GHz: 11 dBm 802.11n - 5GHz: 12.5 dBm

- Because band channel used by the country could be different, the user can not change or adjust the operating frequency and this product is set for the regional frequency table.

CE 0197 ⓘ

RGB-PC, HDMI/DVI-PC supported mode

(Only LN54**, LP36**, LA62**)

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
720x400	31.469	70.08
640x480	31.469	59.94
800x600	37.879	60.31
1024x768	48.363	60.00
1152x864	54.348	60.053
1360x768	47.712	60.015
1280x1024	63.981	60.020
1920x1080 (RGB-PC)	66.587	59.934
1920x1080 (HDMI-PC)	67.50	60.00

(Only 39/42/47/55/60LN549E, 55LA625C)

HDMI/DVI-PC supported mode

(Only LP63**, LP86**)

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
640x350	31.468	70.09
720x400	31.469	70.08
640x480	31.469	59.94
800x600	37.879	60.31
1024x768	48.363	60.00
1152x864	54.348	60.053
1360x768	47.712	60.015
1280x1024	63.981	60.020
1920x1080 (HDMI-PC)	67.50	60.00

HDMI/DVI-DTV supported mode

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
720x480	31.469 31.5	59.94 60
720x576	31.25	50
1280x720	37.5 44.96 45	50 59.94 60
1920x1080	33.72 33.75 28.125 26.97 27 33.716 33.75 56.25 67.43 67.5	59.94 60 50 23.97 24 29.976 30.00 50 59.94 60

Component port connecting information

(Only LP36**, LN54**, LP63**, LP869*, LA62**)

Component ports on the TV	Y	P_B	P_R

Video output ports on DVD player	Y	P_B	P_R
	Y	B-Y	R-Y
	Y	Cb	Cr
	Y	Pb	Pr

Signal	Component
480i/576i	O
480p/576p	O
720p/1080i	O
1080p	O (50 Hz / 60 Hz only)

3D supported mode (Only 3D model)

- Video, which is input as below media contents is switched into the 3D screen automatically.
- The method for 3D digital broadcast may differ depending on the signal environment. If video is not switched automatically into 3D, manually convert the settings to view 3D images.

3D supported mode automatically					
Input	Signal	Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Playable 3D video format
HDMI	720p	1280X720	37.5	50	Side by Side(half), Top and Bottom
			45	60	
			75	50	Frame packing
			89.9 / 90	59.94 / 60	
	1080i	1920X1080	33.7	60	Side by Side(half), Top and Bottom
			28.1	50	
	1080p	1920X1080	27	24	Side by Side(half), Top and Bottom
			33.7	30	
			67.5	60	
			56.3	50	
			53.95 / 54	23.98 / 24	Frame packing
3D supported mode manually					
Input	Signal	Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Playable 3D video format
HDMI	720p	1280X720	37.5	50	Side by Side, Top and Bottom
			45	60	
	1080i	1920X1080	33.75	60	Side by Side, Top and Bottom
			28.125	50	
	1080p	1920X1080	27	24	Side by Side, Top and Bottom
			33.75	30	
			67.43 / 67.5	59.94 / 60.00	Side by Side, Top and Bottom, Single frame sequential
			56.25	50	
DTV	720p	1280X720	37.5	50	Side by Side, Top and Bottom
	1080i	1920X1080	28.125	50	
USB	1080p	1920X1080	33.75	30	Side by Side, Top and Bottom, MPO(Photo), JPS(Photo)

IR CODES

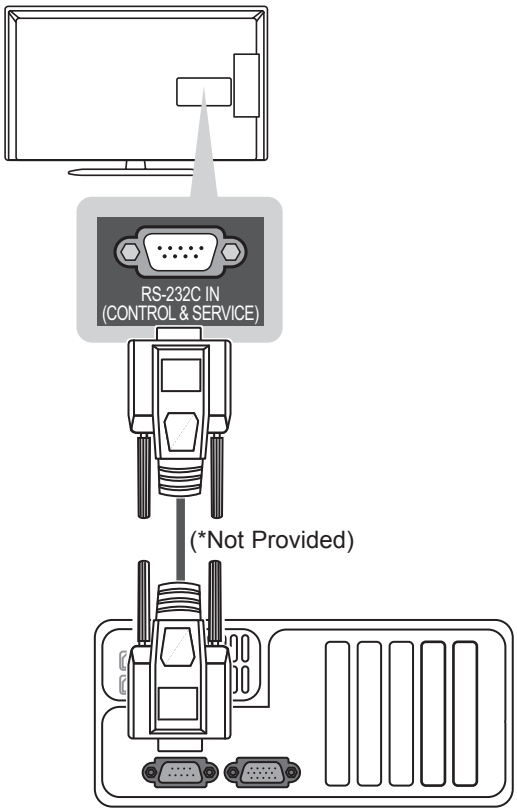
- This feature is not available for all models.

Code (Hexa)	Function	Note
08	⏻ (POWER)	Remote control Button (Power On/Off)
95	ENERGY SAVING	Remote control Button
30	AV MODE	Remote control Button
0B	INPUT	Remote control Button
F0	TV/RAD	Remote control Button
10-19	Number Key 0-9	Remote control Button
53	LIST	Remote control Button
1A	Q.VIEW	Remote control Button
02	◿ +	Remote control Button
03	◿ -	Remote control Button
1E	FAV	Remote control Button
79	RATIO	Remote control Button
09	MUTE	Remote control Button
00	**P** ∧	Remote control Button
01	**P** ∨	Remote control Button
43	SETTINGS	Remote control Button
AB	GUIDE	Remote control Button
45	Q.MENU (3D Option)	Remote control Button
AA	INFO	Remote control Button
28	BACK ⮌	Remote control Button
5B	EXIT	Remote control Button
44	OK	Remote control Button
40	^	Remote control Button
41	v	Remote control Button
07	<	Remote control Button
06	>	Remote control Button
72	RED	Remote control Button
71	GREEN	Remote control Button
63	YELLOW	Remote control Button
61	BLUE	Remote control Button
20	TEXT	Remote control Button
21	T.OPT(T.Option)	Remote control Button
39	SUBTITLE	Remote control Button
B1	■	Remote control Button
B0	▶	Remote control Button
BA	⏸	Remote control Button
8E	▶▶	Remote control Button
8F	◀◀	Remote control Button
91	AD	Remote control Button
7E	SIMPLINK	Remote control Button
0C	PORTAL	Remote control Button
43	HOME	Remote control Button
E8	ALARM	Remote control Button
DC	3D	Remote control Button

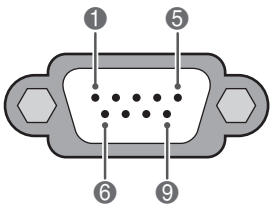
EXTERNAL CONTROL DEVICE SETUP

RS-232C setup

Connect the RS-232C (serial port) input jack to an external control device (such as a computer or an A/V control system) to control the product's functions externally.
Connect the serial port of the control device to the RS-232C jack on the product back panel.
Note: RS-232C connection cables are not supplied with the product.



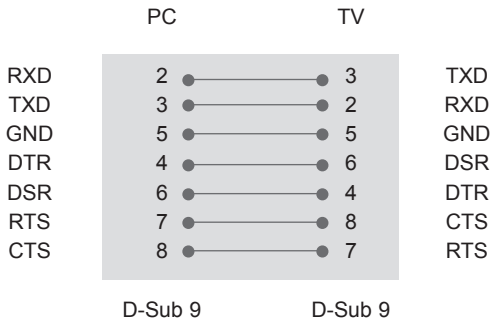
Type of connector: D-Sub 9-Pin Male



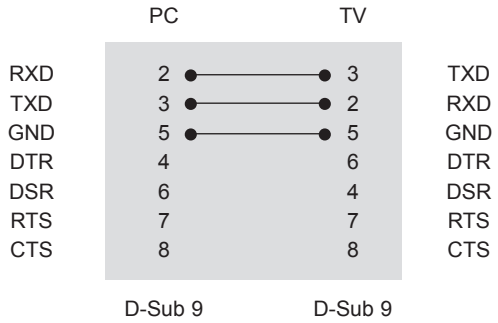
No.	Pin name
1	3.5V
2	RXD (Receive data)
3	TXD (Transmit data)
4	IR OUT from TV
5	GND
6	No Connection
7	No Connection
8	No Connection
9	No Connection (12V available in some models)

RS-232C configurations

7-Wire Configurations
(Standard RS-232C cable)



3-Wire Configurations
(Not standard)



Set ID

Set ID number. "**Real Data Mapping**".

1. Press **SETTINGS** or **HOME** to access the main menus.
2. Press the Navigation buttons to scroll to **OPTION** and press **OK**.
3. Press the Navigation buttons to scroll to **Set ID** and press **OK**.
4. Scroll left or right to select a set ID number and select **Close**. The adjustment range is 1-99.
5. When you are finished, press **EXIT**.

ENGLISH

Communication parameters

- Baud rate: 9600 bps (UART)
- Data length: 8 bits
- Parity : None
- Stop bit: 1 bit
- Communication code: ASCII code
- Use a crossed (reverse) cable.

Command reference list

(Depending on model)

	COMMAND1	COMMAND2	DATA (Hexadecimal)		COMMAND1	COMMAND2	DATA (Hexadecimal)
01. Power	k	a	00 to 01	13. Treble	k	r	00 to 64
02. Aspect Ratio	k	c	(See p.42)	14. Bass	k	s	00 to 64
03. Screen Mute	k	d	(See p.42)	15. Balance	k	t	00 to 64
04. Volume Mute	k	e	00 to 01	16. Colour Temperature	x	u	00 to 64
05. Volume Control	k	f	00 to 64	17. Energy Saving	j	q	00 to 05
06. Contrast	k	g	00 to 64	18. Auto Configuration	j	u	01
07. Brightness	k	h	00 to 64	19. Tune Command	m	a	(See p.44)
08. Colour	k	i	00 to 64	20. Programme Add/Skip	m	b	00 to 01
09. Tint	k	j	00 to 64	21. Key	m	c	Key Code
10. Sharpness	k	k	00 to 64	22. Control Back Light	m	g	00 to 64
11. OSD Select	k	l	00 to 01	23. Input select (Main)	x	b	(See p.45)
12. Remote Control Lock Mode	k	m	00 to 01				

* Note : During USB operations such as DivX or EMF, all commands except Power(ka) and Key(mc) are not executed and treated as NG.

Transmission / Receiving Protocol

Transmission

[Command1][Command2][ ][Set ID][ ][Data][Cr]

[Command 1] : First command to control the TV.(j, k, m or x)
[Command 2] : Second command to control the TV.
[Set ID] : You can adjust the set ID to choose desired monitor ID number in option menu. Adjustment range is 1 to 99. When selecting Set ID '0', every connected set is controlled.
Set ID is indicated as decimal (1 to 99) on menu and as Hexa decimal (0x0 to 0x63) on transmission/receiving protocol.
[DATA] : To transmit command data. Transmit 'FF' data to read status of command.
[Cr] : Carriage Return
ASCII code '0x0D'
[ ] : ASCII code 'space (0x20)'

OK Acknowledgement

[Command2][ ][Set ID][ ][OK][Data][x]

* The set transmits ACK (acknowledgement) based on this format when receiving normal data. At this time, if the data is data read mode, it indicates present status data. If the data is data write mode, it returns the data of the PC computer.

Error Acknowledgement

[Command2][ ][Set ID][ ][NG][Data][x]

* The set transmits ACK (acknowledgement) based on this format when receiving abnormal data from non-viable functions or communication errors.

Data 00: Illegal Code

01. Power (Command: k a)

► To control Power On/Off of the set.

Transmission[k][a][ ][Set ID][ ][Data][Cr]

Data 00 : Power Off 01 : Power On

Ack [a][ ][Set ID][ ][OK/NG][Data][x]

► To show Power On/Off.

Transmission [k][a][ ][Set ID][ ][FF][Cr]

Ack [a][ ][Set ID][ ][OK/NG][Data][x]

* Similarly, if other functions transmit '0xFF' data based on this format, Acknowledgement data feed back presents status about each function.
* OK Ack., Error Ack. and other message may display on the screen when TV is power On.

02. Aspect Ratio (Command: k c) (Main Picture Size)

► To adjust the screen format. (Main picture format)
You can also adjust the screen format using the Aspect Ratio in the Q.MENU. or PICTURE menu.

Transmission [k][c][ ][Set ID][ ][Data][Cr]

Data 01 : Normal screen (4:3)
02 : Wide screen (16:9)
04 : Zoom
06 : Original
07 : 14:9
09 : Just Scan
0B : Full Wide
10 to 1F : Cinema Zoom 1 to 16

Ack [c][ ][Set ID][ ][OK/NG][Data][x]

* Using the PC input, you select either 16:9 or 4:3 screen aspect ratio.
* In DTV/HDMI (1080i 50 Hz / 60 Hz, 720p 50Hz / 60 Hz, 1080p 24 Hz / 30 Hz / 50 Hz / 60 Hz), Component(720p, 1080i, 1080p 50 Hz / 60 Hz) mode, Just Scan is available.
* Full Wide is supported only for Digital, Analogue, AV.

03. Screen Mute (Command: k d)

► To select screen mute on/off.

Transmission [k][d][ ][Set ID][ ][Data][Cr]

Data 00 : Screen mute off (Picture on)
Video mute off
01 : Screen mute on (Picture off)
10 : Video mute on

Ack [d][ ][Set ID][ ][OK/NG][Data][x]

* In case of video mute on only, TV will display On Screen Display(OSD). But, in case of Screen mute on, TV will not display OSD.

04. Volume Mute (Command: k e)

► To control volume mute on/off.
You can also adjust mute using the MUTE button on remote control.

Transmission [k][e][ ][Set ID][ ][Data][Cr]

Data 00 : Volume mute on (Volume off)
01 : Volume mute off (Volume on)

Ack [e][ ][Set ID][ ][OK/NG][Data][x]

05. Volume Control (Command: k f)

► To adjust volume.
You can also adjust volume with the volume buttons on remote control.

Transmission [k][f][ ][Set ID][ ][Data][Cr]

Data Min : 00 to Max : 64
* Refer to 'Real data mapping'. See p.45.

Ack [f][ ][Set ID][ ][OK/NG][Data][x]

06. Contrast (Command: k g)

► To adjust screen contrast.
You can also adjust contrast in the PICTURE menu.

Transmission [k][g][ ][Set ID][ ][Data][Cr]

Data Min : 00 to Max : 64
* Refer to 'Real data mapping'. See p.45.

Ack [g][ ][Set ID][ ][OK/NG][Data][x]

07. Brightness (Command: k h)

► To adjust screen brightness.
You can also adjust brightness in the PICTURE menu.

Transmission [k][h][ ][Set ID][ ][Data][Cr]

Data Min : 00 to Max : 64
* Refer to 'Real data mapping'. See p.45.

Ack [h][ ][Set ID][ ][OK/NG][Data][x]

08. Colour (Command: k i)

► To adjust the screen colour.
You can also adjust colour in the PICTURE menu.

Transmission [k][i][ ][Set ID][ ][Data][Cr]

Data Min : 00 to Max : 64
* Refer to 'Real data mapping'. See p.45

Ack [i][ ][Set ID][ ][OK/NG][Data][x]

09. Tint (Command: k j)

► To adjust the screen tint.
You can also adjust tint in the PICTURE menu.

Transmission [k][j][ ][Set ID][ ][Data][Cr]

Data Red : 00 to Green : 64
* Refer to 'Real data mapping'. See p.45.

Ack [j][ ][Set ID][ ][OK/NG][Data][x]

10. Sharpness (Command: k k)

► To adjust the screen sharpness.
You can also adjust sharpness in the PICTURE menu.

Transmission [k][k][ ][Set ID][ ][Data][Cr]

Data Min : 00 to Max : 64 (Except for LP86**)
Data Min : 00 to Max : 32 (Only LP86**)
* Refer to 'Real data mapping'. See p.45.

Ack [k][ ][Set ID][ ][OK/NG][Data][x]

11. OSD Select (Command: k l)

► To select OSD (On Screen Display) on/off when controlling remotely.

Transmission [k][l][ ][Set ID][ ][Data][Cr]

Data 00 : OSD off 01 : OSD on

Ack [l][ ][Set ID][ ][OK/NG][Data][x]

12. Remote control lock mode (Command: k m)

► To lock the front panel controls on the monitor and remote control.

Transmission [k][m][ ][Set ID][ ][Data][Cr]

Data 00 : Lock off 01 : Lock on

Ack [m][ ][Set ID][ ][OK/NG][Data][x]

* If you are not using the remote control, use this mode.
When main power is on/off, external control lock is released.
* In the standby mode, if key lock is on, TV will not turn on by power on key of IR & Local Key.

13. Treble (Command: k r)(Except for LP86**)

► To adjust treble.
You can also adjust treble in the AUDIO menu.

Transmission [k][r][ ][Set ID][ ][Data][Cr]

Data Min : 00 to Max : 64
* Refer to 'Real data mapping'. See p.45.

Ack [r][ ][Set ID][ ][OK/NG][Data][x]

14. Bass (Command: k s) (Except for LP86**)

► To adjust bass.
You can also adjust bass in the AUDIO menu.

Transmission [k][s][ ][Set ID][ ][Data][Cr]

Data Min : 00 to Max : 64
* Refer to 'Real data mapping'. See p.45.

Ack [s][ ][Set ID][ ][OK/NG][Data][x]

15. Balance (Command: k t)

► To adjust balance.
You can also adjust balance in the AUDIO menu.

Transmission [k][t][ ][Set ID][ ][Data][Cr]

Data Min : 00 to Max : 64
* Refer to 'Real data mapping'. See p.45.

Ack [t][ ][Set ID][ ][OK/NG][Data][x]

16. Colour Temperature (Command: x u)

► To adjust colour temperature. You can also adjust Colour Temperature in the PICTURE menu.

Transmission [x][u][ ][Set ID][ ][Data][Cr]

Data Min : 00 to Max : 64
* Refer to 'Real data mapping'. See p.45.

Ack [u][ ][Set ID][ ][OK/NG][Data][x]

17. Energy Saving (Command: j q)

► To reduce the power consumption of the TV. You can also adjust Energy Saving in PICTURE menu.

Transmission [j][q][ ][Set ID][ ][Data][Cr]

Power Saving Function					Level				Description
7	6	5	4		3	2	1	0	
0	0	0	0	Low Power	0	0	0	0	Off
0	0	0	0	Low Power	0	0	0	1	Minimum
0	0	0	0	Low Power	0	0	1	0	Medium
0	0	0	0	Low Power	0	0	1	1	Maximum
0	0	0	0	Low Power	0	1	0	1	Screen Off
0	0	0	0	Low Power	0	1	0	0	Auto

► 'Auto' is available in TV that supports 'Intelligent Sensor'

Ack [q][ ][Set ID][ ][OK/NG][Data][x]

18. Auto Configure(Command: j u)

► To adjust picture position and minimize image shaking automatically. It works only in RGB (PC) mode.

Transmission [j][u][ ][Set ID][ ][Data][Cr]

Data 01: To set

Ack [u][ ][Set ID][ ][OK/NG][Data][x]

19. Tune Command (Command: m a)

► Select channel to following physical number.

Transmission [m][a][ ][Set ID][ ][Data0][ ][Data1][ ][Data2][Cr]

Data00 : High channel data
Data01 : Low channel data
ex. No. 47 -> 00 2F (2FH)
No. 394 -> 01 8A (18AH),
DTV No. 0 -> Don't care
Data02 : [Antena]
0x00 : Analog Main
0x10 : DTV Main
0x20 : Radio

[Cable]
0x80 : Analog Main
0x90 : DTV Main
0xA0 : Radio

Channel data range
Analogue - Min: 00 to Max: 63 (0 to 99)
Digital - Min: 00 to Max: 3E7 (0 to 999)

Ack [a][ ][Set ID][ ][OK/NG][Data][x]

Data Min: 00 to Max: 7DH

20. Programme Add/Skip(Command: m b)

► To set skip status for the current Programme.

Transmission [m][b][ ][Set ID][ ][Data][Cr]

Data 00 : Skip 01 : Add

Ack [b][ ][Set ID][ ][OK/NG][Data][x]

21. Key(Command: m c)

► To send IR remote key code.

Transmission [m][c][ ][Set ID][ ][Data][Cr]

Data Key code - See p.38.

Ack [c][ ][Set ID][ ][OK/NG][Data][x]

22. Control Back Light(Command: m g)

► To control the back light.

Transmission [m][g][ ][Set ID][ ][Data][Cr]

Data Min : 00 to Max : 64

Ack [g][ ][Set ID][ ][OK/NG][Data][x]

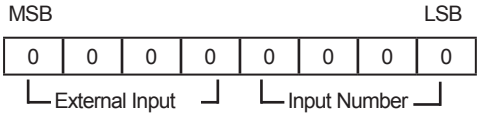
23. Input select (Command: x b)

(Main Picture Input)

► To select input source for main picture.

Transmission [x][b][ ][Set ID][ ][Data][Cr]

Data Structure



External Input				Data
0	0	0	0	DTV
0	0	0	1	Analogue
0	0	1	0	AV
0	1	0	0	Component
0	1	1	0	RGB
0	1	1	1	HDMI
1	0	0	0	
1	0	0	1	
1	0	1	0	

Input Number				Data
0	0	0	0	Input1
0	0	0	1	Input2
0	0	1	0	Input3
0	0	1	1	Input4

Ack [b][ ][Set ID][ ][OK/NG][Data][x]

*** Real data mapping**

00 : Step 0
⋮
A : Step 10 (Set ID 10)
⋮
F : Step 15 (Set ID 15)
10 : Step 16 (Set ID 16)
⋮
64 : Step 100
⋮
6E : Step 110
⋮
73 : Step 115
74 : Step 116
⋮
CF : Step 199
⋮
FE : Step 254
FF : Step 255

24. 3D(Command: x t) (only 3D models) (Depending on model)

► To change 3D mode for TV.

Transmission [x][t][ ][Set ID][ ][Data 01][ ][Data 02][ ][Data 03][ ][Data 04][Cr]

Data Structure

Data 01 00 : 3D On
01 : 3D Off
02 : 3D to 2D
03 : 2D to 3D

Data 02 00 : Top and Bottom
01 : Side by Side
02 : Checker Board
03 : Frame Sequential

Data 03 00 : Right to Left
01 : Left to Right

Data 04 3D Effect(3D Depth): Min : 00 - Max : 14
(*transmit by Hexadecimal code)

* If data1 is 00(3D On), data4 has no meaning.
* If data1 is 01(3D off) or 02(3D to 2D), data2, data3 and data4 have no meaning.
* If data1 is 03(2D to 3D), data2 and data3 have no meaning.

Data 1	Data 2	Data 3	Data 4
00	O	O	X
01	X	X	X
02	X	X	X
03	X	X	O

X : don't care

Ack [t][ ][Set ID][ ][OK][Data01][Data02][Data03][Data04][x]

[t][ ][Set ID][ ][NG][Data00][x]

25. Extended 3D(Command: x v) (only 3D models) (Depending on model)

► To change 3D option for TV.

Transmission [x][v][ ][Set ID][ ][Data 00][ ][Data 01][Cr]

Data 01 : 3D option
00 : 3D Picture Correction
01 : 3D Depth (2D to 3D only)
02 : 3D Viewpoint
03 : 3D Picture Size (Plasma TV only)
04 : 3D Picture Blance (Plasma TV only)
05 : 3D Optimization (Active type (LCD TV) only)

Data 02 It has own range for each 3D option determined by Data 01.

1) When Data 01 is 00
00 : Right to Left
01 : Left to Right

2) When Data 01 is 01, 02
Data Min: 0 - Max: 14 (*transmit by Hexadecimal code)
Data value range(0 - 20) converts Viewpoint range (-10 - +10) automatically (Depending on model)

3) When Data01 is 03
00 : Just Scan
01 : 16:9

4) When Data01 is 04
00 : Off
01 : On

5) When Data01 is 05
Data Min: 0 - Max: 02(*transmit by Hexadecimal code)
*Refer to 'Real data mapping'.

Ack [v][ ][Set ID][ ][OK][Data01][Data02][x][v][ ][NG][Data01][x]

The model and serial numbers of the TV is located on the back of the TV
Record it below should you ever need service.

Model _____

Serial _____